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U.S. Department of Agriculture

FOREST SERVICE

EXPLANATORY NOTES

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FOREST SERVICE ROLE IN NATURAL RESOURCE POLICY AND PROGRAMS

The Forest Service has the Federal responsibility for national leadership in "forestry." 1/ This includes participation in setting national priorities, formulating programs, and establishing Federal policies that relate to man and his natural environment, especially the forest-related environment.

Rangeland, grassland, brushland, alpine areas, water areas, and wildlife habitats are included within the scope of forests and the forest-related environment. Forestry is the protection and management of this land and its natural resources for the many and varied purposes of mankind.

Forests provide raw materials for basic necessities of life as well as natural environments for many leisure and educational activities. The Forest Service seeks to attain a harmonious relation between man and his natural environment.

WHAT THE FOREST SERVICE DOES

In carrying out its national forestry leadership role, the Forest Service undertakes a wide variety of activities. Major responsibilities include administration of the National Forest System, Cooperative State and Private Forestry Programs, Forestry Research, and Human Resource Development Programs (Figure 1). These major programs are discussed briefly here:

National Forest System

The Forest Service administers 187 million acres of Federal land located in 44 States, Puerto Rico, and the Virgin Islands. The National Forest System (hereafter called National Forests) is composed of 155 National Forests, 19 National Grasslands, 17 Land Utilization Projects, and 26 Research Areas (Figure 2).

Multiple use is a land management concept designed to obtain sustained flows of goods and services. The various land uses are harmonized to minimize conflicts, and the relative values of the various resources are considered in determining land and resource use patterns that will meet the needs of the American people.

Watersheds are managed to regulate streamflow, to control floods and erosion, and to store water. Much of the Nation's water supply flows from the National Forests; protection and improvement of these natural watersheds help to assure an adequate supply of pure water to meet the growing demands of agriculture, industry, and the American public.

Forage is managed to conserve the soil and vegetation while providing food and habitat for livestock and wildlife. Rangeland is also managed for its recreation, timber, and water resources.

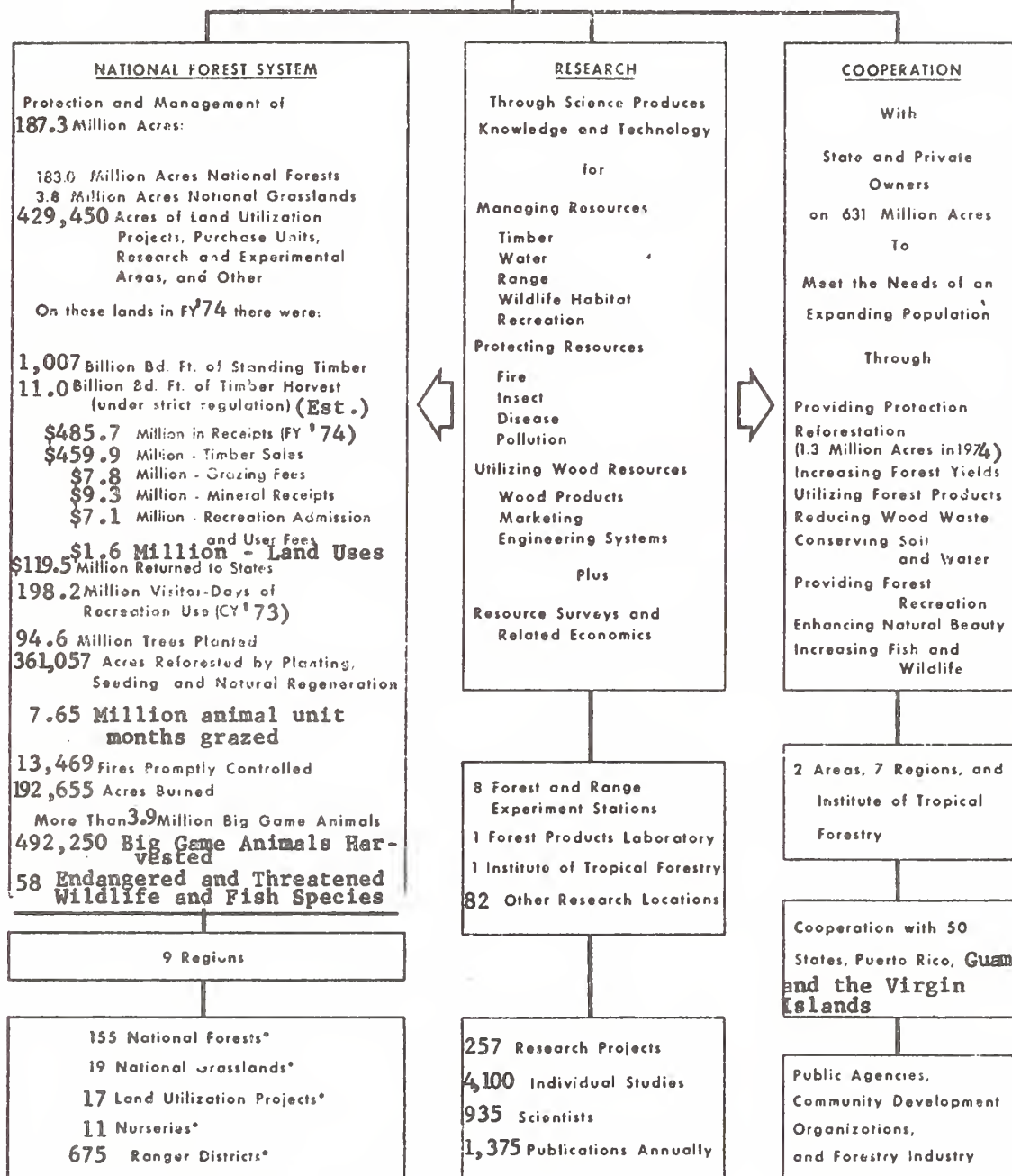
Fish and wildlife habitat in the National Forests and National Grasslands is managed to provide a suitable habitat for native wildlife and fish species. A primary objective is to provide opportunities for sportsmen, bird- and animal-watchers, photographers, and others to enjoy the fish and wildlife resources. Hunting and fishing in the National Forests are regulated by State laws. Forest Service projects aimed at maintaining and improving fish and wildlife habitat are carried out cooperatively with State fish and game agencies.

Recreation facilities on forest land are managed to best serve the steadily increasing numbers of Americans seeking relaxation in the outdoors. Attractions range from family picnic areas to vast wilderness tracts. Although much of the enjoyment is afforded by the natural environment of the forest itself, facilities are provided for a wide range of recreational activities--such as, camping, picnicking, boating, swimming, and winter sports.

1/ This responsibility is delegated to the Chief of the Forest Service under Administrative Regulations of the U.S. Department of Agriculture (7 CFR 2.60).

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

MAJOR ACTIVITIES



* ADMINISTERED BY 123 SUPERVISORS

January 1975

Figure 1

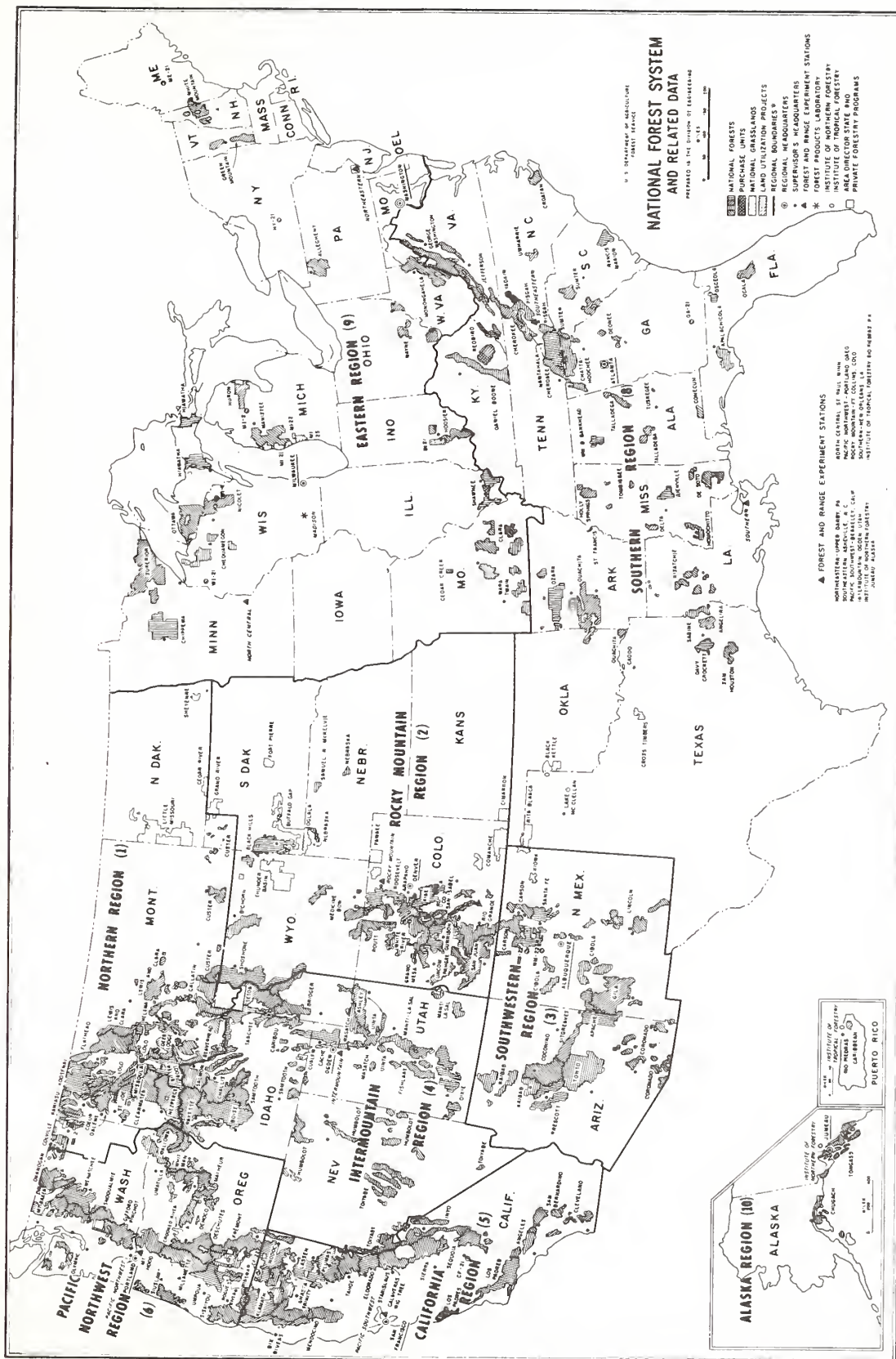


Figure 2

Timber is managed to produce a continuous flow of wood products to serve America's many demands. This "sustained-yield" principle, implemented by modern forestry techniques, helps to assure adequate present and future crops of high-quality timber. As timber stands are improved and growth increases, the annual harvest can be increased.

Inherent is the responsibility to provide appropriate facilities and services for many purposes. Roads and trails must be built and maintained; pipeline and utility rights-of-way must be granted; permits for special uses must be issued; mining claims must be approved; and boundaries must be surveyed. All must be harmonized with other uses to maintain the quality of the environment. Finally, the National Forests must be protected--from wildfire, from harmful insects and diseases, from law violators, and from careless people.

State and Private Forestry

Through cooperative programs with State and local governments, forest industries, and private landowners, the Forest Service helps to protect and manage 631 million acres of forest and associated watershed land. Technical and financial assistance is provided to improve fire, insect, and disease control; to develop multiple use management so as to obtain optimum potential of forest resources; to improve harvesting, processing, and marketing of forest products; and to stimulate reforestation and timber stand improvement.

Cooperative Forest Fire Control Program. All 50 States participate in this program. Each State is responsible for the manpower, equipment, and organization required. The Forest Service provides coordination and financial and technical assistance, including training of fire control personnel, development of equipment, and implementation of research information.

Cooperative Forest Pest Action Program. Forty States now participate in this program to prevent, detect, and evaluate insect and disease damage. Federal cost-sharing and technical assistance are available to the States to suppress forest insect and disease outbreaks where warranted. The program also includes pest control activities on Federal land.

Cooperative Forest Management and General Forest Assistance Programs. These programs provide technical assistance to private forest landowners, forest operators and processors, and public agencies in developing forest resources to their maximum potential consistent with wise conservation practices.

Cooperative Tree Seedling Program. Under this program all States and the Virgin Islands cooperate with the Forest Service to establish seed orchards and forest and shelterbelt plantings on State and privately-owned land.

Other Cooperative Programs. The Forest Service carries out the forestry aspects of the Department of Agriculture watershed protection, flood prevention, and resource conservation and development programs. Watershed restoration and resource development work on State and private forest lands is done by the State forestry agencies through cooperative agreements. The forestry aspects of comprehensive resource and river basin planning are provided by Forest Service staff or by State forestry agencies through cooperative agreements.

Forestry Research

The Forest Service carries on a broad program of research through its eight regional Experiment Stations, the Forest Products Laboratory, and the Institute of Tropical Forestry. Field and laboratory research is conducted at nearly 80 locations throughout the United States. The Experiment Stations are responsible for solving regional problems, although much of their work has interregional, national, and international significance. Through coordination and cooperation among Stations, with universities and other research agencies, and with land managers, the research organization works to solve the urgent problems facing managers of the Nation's forest and range resources.

Biological research provides information on the establishment, improvement, and growth of trees, grasses, and other forest-related vegetation. Other research is oriented toward protection of forest resources from fire, insects, diseases, and animal pests in ways that are not detrimental to the forest ecosystem.

Physical and economic research provides new uses for forest resources and develops methods of extending those in limited supply. A continuing forest survey provides comprehensive information on the extent and condition of forest land and the outlook for future supplies and demands. Research programs examine impacts of forest use activities on water quality, soil erosion, and sediment production. Systems of livestock grazing management are developed along with methods of managing fish and wildlife habitat. Other studies are geared toward integration of recreation and esthetic objectives with other multiple uses.

International Forestry. Leadership is provided through cooperation and exchange with forestry organizations and individuals of other countries.

Human Resource Development Programs

The Forest Service participates in general cooperative manpower programs authorized by the Comprehensive Employment and Training Act of 1973 (87 Stat. 839). Under an agreement with the Department of Labor, the Forest Service operates Job Corps Civilian Conservation Centers to provide basic education and job training to disadvantaged youth. Other cooperative work-training programs the Forest Service participates in include Operation Mainstream for older Americans, Neighborhood Youth Corps, College Work-study, and special training programs under the Manpower Development and Training Act. The programs provide work and training to several thousand enrollees each year.

In 1971, the Forest Service, in cooperation with the Department of the Interior, initiated a Youth Conservation Corps Program. This program accomplishes needed conservation work on Federal land administered by the Secretaries of Agriculture and Interior. It also provides young men and women from throughout American society with an opportunity to learn about their natural environment through actual field experience. Since fiscal year 1974, there has been a comparable program on State-owned lands.

All Forest Service activities seek to increase job opportunities and to raise standards of living under the Department of Agriculture rural development program.

DEMANDS FOR FOREST RESOURCES

Essential to the formulation of programs is prediction of the demand for the goods and services to be produced. The following briefly describes the projected demands for the many resources produced by America's forests. To set the stage for considering the predictions themselves, let us first note briefly some of the key factors that will affect demand.

INFLUENCES ON CONSUMPTION

Four powerful influences on consumption will continue to work in the future as they have in the past:

- (1) Growth in population or households.
- (2) Increases in income and in household and leisure activities.
- (3) Shifts in tastes and life styles.
- (4) Advancing technology.

Two additional factors have gained in impact in the last few years. They have arisen from shortages caused by failure of resource production to increase as rapidly as demand and by the awareness of our environment's limited ability to absorb society's impacts:

- (5) Price increases.
- (6) Environmental concerns.

Population. Although recent birth rate trends indicate that future population growth will be much slower than the 21 percent per decade experienced since 1920, the impact of high birth rates in the past will be felt for decades to come (Table 1).

Table 1. Indexes of projected population and activity, 1980-2000.
(1970 is base of 100,)

	1975	1980	1984	1990	2000
Population	106	113	119	127	141
Households	113	123	131	143	162
Gross national product	117	138	155	182	246
Disposable personal income	121	145	172	215	320
Disposable personal income per capita	114	131	148	173	233

Source: Forest Service, Outlook for Timber in the United States, 1973c.

Effects of current population growth are often delayed for years, and thus over-estimated. For example, impacts of children born this year will be relatively minor for 10 years, except for food, clothing, and schools. In other words, most demand for forest resources in the next decade will come from men, women, and children already alive.

Income and activity. The general increased pace of living has rapidly increased demands for forest commodities and services. Increased productivity of American workers has boosted the real value of labor. The 88 million working people help to produce a gross national product of \$1-1/4 trillion. Annual income per household is now about \$11,000. Both GNP and total personal income have risen an average of 42 percent per decade and, despite the slackening of population growth, total economic growth is likely to be 40 to 50 percent every 10 years (Table 1). Even with the lowest estimates of population and GNP growth, the quickening pace and changing life styles will certainly consume many more goods and services including those derived from forest resources.

Tastes and lifestyles. Many end uses of forest products and services--new houses, additions and improvements, new furnishings, beef, and long distance vacations--while not necessities, are part of new lifestyles that have evolved in America. And with higher consumption of "discretionary" products and services, the direction and pace of change of demand become highly unpredictable. Most recently energy shortages have begun to influence lifestyles in ways that have not yet been adequately measured.

Technology. Technological progress continues to reduce amounts of raw materials required per unit of final product. In particular, refinements in wood product processing and remanufacture are likely to dampen the increase in demand for round-wood timber by 15 percent by 1980 (Forest Service, 1973c).

Price changes. Throughout the 1950's and 1960's resource scarcities were seldom serious. Prices for most raw materials were relatively stable. Patterns of use were influenced by cheap energy, reasonably priced suburban land, relatively inexpensive food, and stable timber prices. This situation has changed for many raw materials and resources. Worldwide supplies have not kept up with demand for numerous economic and political reasons. The energy shortage, aggravated by the 1973 Mid-East War, brought this forcefully to public attention. Future home construction may be greatly influenced by rising energy and commuting costs, higher lumber and other material prices, increased land prices, and in some areas sewage and other environmental limitations. Patterns of outdoor recreation may be especially affected by gasoline prices and shortages. However, estimating long-run impacts on these price changes and raw material shortages is difficult; projections must be largely subjective at this time.

Environmental costs and limits. Society wants more from its forest environment than tangible goods and services. It wants beauty, solitude, spiritual uplifting, mystery--all the things that are summed up in the word "amenities." Paradoxically the processes that deprive the environment of these qualities are the same processes of natural resource use and product consumption that have so improved modern standards of living. For many years, the so-called "disproducts" of our economic

system--wastes, impaired productivity, despoiled beauty, health and safety hazards--were outside the workings of our market economy. They had little effect on either the producers or consumers of goods and services. They affected third parties--whether neighbors, downstream of distant water or air users, or society at large. Often they affected future society as well as the present one. In the last decades, however, the demand for quality environmental management has become one of America's leading social causes reflected in new pollution regulations and environmental standards and through various legal actions. Whatever the causes, the environmental movement signals a major shift in values and a new set of demands.

SPECIFIC RESOURCE DEMANDS

Clearly, even though we know what things influence demand, we cannot always know precisely how demand will be influenced in the future. Many uncertainties are involved. Nevertheless, some trends are evident, and good planning requires reasonable predictions. In this context then we will consider probable trends in future demand for forest resources. Further detail is available in the USDA Forest Service's "Outlook for Timber in the United States" (1973c), "The Nation's Range Resources--A Forest Range Environmental Study" (1972b), an "Interim Report of the Demand Task Force" (1972), and the USDI Bureau of Outdoor Recreation's "Outdoor Recreation--Appendix A, an Economic Analysis" (1973).

Outdoor Recreation

In recent years recreational use of public land is increasing at a rate comparable to a 40 percent increase per decade (Bureau of Outdoor Recreation, 1971). Reasons for this accelerating demand are increasing incomes, more leisure time, the youthfulness of America's population, and growing preference for environmental amenities.

One of the fastest growing types of recreation use has been automobile travel for recreation and related activities in dispersed areas. Such use comprised 23 percent of all visitor-days spent on National Forest lands in 1972. Automobile travel is likely to be affected by the extent of energy shortages within the next decade.

Many recreational activities are physically demanding, and are sensitive to population age changes. Among them are camping, wilderness travel, fishing, hunting, off-road vehicle travel, and skiing. One reason for the surge in recreation use in the last 10 years is the population growth increase from 1946 to the mid-1950's. Babies born during that decade were ready to take to the woods two decades later. The 1940-60 baby boom, however, was followed by one of the longest and deepest slumps in the fertility rate in U.S. history. We do not know the full implication of the decline in the birth rate, but we do know that participation in physically demanding outdoor recreation diminishes with age (Bureau of Outdoor Recreation, 1973). Thus, the rate of currently accelerating recreation demand may soon moderate (Table 2).

The slowdown in rate of growth for some kinds of recreation will first appear as a result of reduced numbers of 15-19 year olds from 1975 through 1985. It will affect activities teenagers prefer for outdoor recreation. This will be followed by a diminishing rate of growth in activities common to the 20-24 age set, beginning about 1980 and continuing through 1990. Thus, the effect of the dropoff in fertility rate will work its way through each age group influencing corresponding outdoor recreation demand for a generation.

Table 2. Indexes of projections of selected National Forest recreation uses, 1980 to 2000. (1970 is base of 100.)

	<u>1975</u>	<u>1980</u>	<u>1984</u>	<u>1990</u>	<u>2000</u>
Camping	113	124	132	143	166
Big game hunting	107	114	119	128	142
Small game hunting	107	115	119	130	143
Off-road vehicles	126	139	148	158	177
Skiing	111	121	127	137	150
Fishing	109	117	122	133	146

Source: Demand Task Force, Interim Report of Demand Task Force, 1972.

Camping--particularly in developed campgrounds--has probably grown faster than most other outdoor activity. Outdoor Recreation Resources Review Commission (1962) estimated that in 1960 about 8 percent of the population 12 years and older camped. By 1972, the number grew to 11 percent of the population (Bureau of Outdoor Recreation, 1973). Until 1972 the fastest growing segment of the camping market was auto and trailer camping. The 1960's saw the beginning of a recreational vehicle boom with the introduction of motor homes and pickup covers. By the end of 1971, more than 4 million such vehicles were in use (Demand Task Force, 1972). Recreation vehicle use is typically family-oriented and has been a major impetus to the camping boom.

But while there have been many recruits to camping, there are rising numbers of camping dropouts. In a recent study of camping habits (LaPage, 1973), each camping family that camped more frequently was offset by two other families who camped less each year. Some 20 percent of former campers were no longer active, a third had decreased their camping, and many of the rest reported that they were camping more but enjoying it less. Many members said that campgrounds were deteriorating and that a new breed of inconsiderate campers was taking over--a sharp contrast to comments made by the same campers earlier. Shortages of gasoline or, in the long run, higher prices may discourage new families from starting to camp and force veteran campers to curtail their camping. Camping may tend to be concentrated in areas close to urban centers. If past practices continue, however, camping recruits are likely to exceed camping dropouts. Camping is expected to increase 19 percent per decade on Forest Service land if the fuel situation does not worsen, but less if gasoline prices continue to rise.

Wilderness travel on National Forest land has increased 80 percent in the past decade, a rate that cannot be sustained for long. Because of this rapid pace and the potential addition of more wilderness areas, meaningful long-term projections cannot be made. Fuel shortages will likely curtail wilderness use, but not to the same degree as for camping. Wilderness users are somewhat younger, more urban, and often more affluent than most other campers.

Fishing is the second largest (after camping) physical recreation activity on National Forests. There are twice as many fishermen as campers in the United States, but the sport is spread out along thousands of miles of streams and rivers and on hundreds of lakes. Fishing is increasing moderately, 15 to 20 percent per decade (Fish and Wildlife Service, et. al. 1960, 1970). Because fishing often involves many trips to nearby fishing spots, it is likely to be heavily influenced by higher fuel prices and gas shortages.

Hunting is expected to increase moderately even though continued environmental concern and shifts in land use may restrict the land area available for game production and hunting. The problem presents a serious challenge to resource planners and managers. Total hunting population has leveled off in the last 5 years, but some hunters spend more time at the sport (Fish and Wildlife Service, et. al. 1960, 1970). Small game hunting, the most popular type, will show some increase over the next decade. But rapid growth of big game hunting is anticipated--as much as 20 percent more hunters per decade (Demand Task Force, 1972).

Off-road recreation vehicles (ORRV's) are having a greater impact on forest use each year. Detailed data are available for only a few types of such vehicles (Demand Task Force, 1972). Snowmobiles and motorcycles are produced in the largest numbers and therefore will have the greatest impact on National Forests. Snowmobile sales increased sharply during the 1960's but appear to be growing at a slower rate in the early 1970's. Motorcycle, minibike, and trail bike sales rose gradually from about 25,000 units in 1955 to 60,000 units in 1960. With the introduction into the U.S. market of inexpensive, imported, lightweight motorcycles, annual sales leaped to 1.4 million by 1970. The buyers are relatively young. Based on national sales forecasts and present participation rates, use of scooters, motorcycles, and snow craft on National Forest land is likely to nearly double by 2000 (Demand Task Force, 1972). ORRV activity is of course strongly influenced by the availability and price of fuel.

Skiing, a highly social sport, is now enjoyed by 5 million Americans, up 500,000 per year for the last 5 years. Most new skiers are from the far West and the eastern seaboard. Skiers are predominantly a young group. About two-thirds are 30 years old or less and a fifth are 18 years or younger. The typical skier is affluent and well educated. In three regional studies skiers were found to have 25 percent more income than average residents (Leuschner and Herrington, 1971). There has been an increase in the proportion of unmarried and female skiers. And, the average skier skis in his home region--residents of each region account for about 85 percent of the days skied. Only in some States, such as Alaska, Colorado, Utah, Vermont, Montana, Wyoming, and New Hampshire, do nonresident skiers form a significant demand. A 15 to 25 percent increase in skiing per decade is likely to continue on National Forests. The fuel shortage may have only a limited effect on skiing unless gasoline becomes extremely scarce.

Timber

Timber demand is keyed directly and indirectly to new residential construction. Essentially, a new housing unit is required for each new household or family. So the number of new households and the age of family heads strongly influence the number of housing units to be built. In the 1970's households are estimated to grow by 1 million annually, in the 1980's by 1.1 million annually, and the 1990's by 1.2 million annually. In addition, the number of units required to replace those torn down because of urban environmental improvement projects and conversion of residential areas to commercial and those left vacant by declining rural population may rise from .9 million in the 1970's to 1.2 million in the 1990's (Forest Service, 1973c).

The sharp increase in young households in the 1960's brought a corresponding boost in the demand for multifamily units and mobile homes. This trend is expected to continue into the 1980's when demand for more single dwelling units will increase in response to the growing number of families headed by 34-year-old and older persons able to afford single family houses. However, if fuel shortages and high prices persist, demand may shift from single units in distant suburbs to compact townhouse and apartment complexes nearer the cities.

Residential construction in new suburban areas influences many types of nonresidential construction, such as schools, churches, and stores. Other construction, such as offices, factories, and public buildings, is more related to the growth of the economy in general. This is also true for manufacturing and shipping uses. For example, in recent years pallet use has grown rapidly and the trend is expected to continue.

Widespread substitution strongly influences use of panel products. Substitution of softwood plywood for lumber caused rapid rises in plywood consumption in the 1950's and early 1960's (Forest Service, 1973c). Inroads were large in sheathing, subflooring, concrete framework, hardwood paneling, and furniture manufacture. Even though trends in plywood use suggest that most potential substitution for lumber has already taken place, projected growth in construction and manufacturing is large enough to continue increases in plywood consumption.

Demand for timber for pulp and paper manufacture is growing significantly. Part of the rise can be attributed to increasing population and national income. But part is the result of major displacement of other materials, such as lumber, veneer, cooperage, glass, and metals, in many products. Large new markets, such as milk cartons and computer paper, have also greatly expanded consumption, in spite of the increased use of plastics. On the other hand, per capita use of some paper products is leveling off and moving toward a saturation point beyond which there seems to be no prospect of further growth (Forest Service, 1973c).

Demand for roundwood products--cooperage, poles, piling, posts, mine timber--is expected to increase only modestly in coming decades. There is, however, a growing demand for logs for export. By 1972, exports of logs rose to 2.8 billion board feet, chiefly in the form of softwood logs produced in western Washington and Oregon and shipped to Japan. Studies indicate that this market will continue to grow.

On the plus side, technological progress in converting trees to wood products will temper demand for wood raw material. Improvements in utilization--use of slabs, edgings, sawdust, veneer cores, shavings, and other similar material for pulp and other products--will help increase product yield per unit of wood.

All these factors together are estimated to increase consumption of timber from U.S. forests 18 to 32 percent per decade until the year 2000, assuming no great increase in prices (Table 3).

Table 3. Indexes of expected consumption of selected commodity outputs from all ownerships, 1980-2000. (1970 is base of 100.)

	<u>1975</u>	<u>1980</u>	<u>1984</u>	<u>1990</u>	<u>2000</u>
Timber-all	121	138	155	167	198
Softwood	120	136	153	160	183
Hardwood	123	144	159	186	241
Water flow	112	123	135	149	175
Forest-range use	110	120	128	135	150
Energy-all	122	143	172	209	286
Coal	116	131	130	195	255
Copper	122	144	168	207	297

Sources: Forest Service, 1972b, 1973c; U.S. Water Resources Council, 1968; National Petroleum Council, 1972.

Water

Generally, demand for water is met by locally available supplies--except in the extreme Southwest where some interregional transporting is done. There are many local problems of total or seasonal water shortages, and there are times when there is too much water--floods. Nationwide, withdrawals of water from surface and underground sources are increasing about 23 percent per decade. Total withdrawal of water, however, is not a good measure of consumptive use because much of the withdrawal water is returned to the system for reuse downstream (U.S. Water Resources Council, 1968).

A much better criterion of the drain on water supply is the amount withdrawn and not returned--consumptive use. Agriculture now accounts for 87 percent of such consumption but by 2000 will account for only 62 percent, even though it will still be the largest consumer of water. Other uses are growing rapidly--about 31 percent increase per decade for municipal use, 38 percent for manufacturing, and 47 percent for steam-electric power generation.

The other important use of water is for waste dilution. Needs for dilution flow decrease as improvements in waste treatment are made. Dilution requirements for a treatment level of 70 percent biological oxygen demand (BOD) removal are 20 times as great as dilution requirements for 97 percent treatment (Wollman and Bonem, 1971).

In addition to human needs, there is also an important demand for sufficient quantities of high-quality water to maintain the fish and other aquatic life necessary to a well-balanced forest environment. A special, localized, but important example is the demand for spawning habitat for anadromous fish (fish that migrate from the sea to fresh water to spawn), primarily in the Pacific Northwest and Alaska. Clear, cool water and stable gravel bottoms are necessary to assure survival of the fingerlings.

Range

Demand for range is influenced by such factors as population, per capita meat consumption, total feed requirements, livestock feeding efficiency, feed rations, and world markets. Other important influences are changes in the livestock industry such as shifts in the source of livestock feed among range, pasture, feed grains, and high protein feeds.

Growth in population will continue to expand markets for food. Rising incomes will permit shifts in American diets toward foods of higher cost. For example, per capita beef consumption rose from 90 pounds in 1959-61 to 114 pounds in 1970. Part of the increased demand for beef has been met by increases in feed concentrates, increases in slaughter weight, and the conversion from dairy operations to beef production. However, further increases must be met primarily from increasing the number of beef cattle and, therefore, the need for grazable forage will increase (Forest Service, 1972b).

An additional factor affecting demand for range is the relatively low cost of producing livestock on a range basis compared to other livestock production systems. The future may see a turnaround from today's practices of high-level feeding of carbohydrates, since they may become valuable for direct human consumption. Increased use of forest rangeland could occur as a result.

Forest rangeland can provide additional feeder cattle needed in the next 20 years if range costs do not increase more than the cost of other feed sources. Competition among regions will partly reflect availability of land and relative costs for raising feeder cattle. Forest range will also continue to support substantial domestic production of lamb and wool.

Forest range grazing demands have been projected within economic, social, and political constraints, and the limitations of the environment's productivity. The results show an average rise in grazing on forest-range of 12 percent per decade with the greatest increase (20 percent) in the first 10 years (Forest Service, 1972b).

Mineral and Energy

In 1972 more than 4 billion tons (nearly 20 tons per person) of new minerals were required to sustain our economy (U.S. Department of the Interior, 1973). Supplies of many minerals are growing short. For example, at current use rates known copper resources in the United States will last only 45 years, but demand is expected to rise 80 percent per decade (U.S. Geological Survey, n.d.).

Increasingly the United States must depend on other countries for important metals. We are now importing all of our manganese, chrome, and tin, more than 85 percent of our nickel and aluminum, more than two-thirds of our mercury and zinc, and nearly half of our tungsten (U.S. Department of the Interior, 1973). To reduce our dependence on foreign sources, a massive effort in domestic minerals exploration and development will be necessary. By accident of geography and geology, the National Forests overlie most of our potential nonferrous metal reserves. In a sense, the National Forests of the Rocky, Cascade, Sierra Nevada, and Coast Range Mountains constitute the Nation's storehouse of these metals. So there will be an increasingly greater interest in developing the minerals in our western forests.

More important, the current energy shortage, which is expected to last a decade or more, is directly affecting fossil fuel extraction on forest land. The energy shortage is the result of a growth in total energy demand of 50 to 60 percent per decade coupled with a decreasing rate of oil and gas discovery and production, and lagging coal output (National Petroleum Council, 1972). Furthermore, many power plants and industries have stopped using high sulfur coal in order to clear up the air in our cities. This makes meeting the demand more difficult. Mine capacity for low-sulfur coal is too small, and remaining domestic reserves of oil and natural gas are too limited to take up the slack. Consequently, we are now relying more heavily on imported oil and gas at drastically higher cost. Until the 1972 Mid-East War, the United States imported 30 percent of its oil.

Much greater use of nuclear power would help, but great caution as well as technical difficulties have slowed nuclear projects. Hydro- and geothermal-electric generation are not expected to satisfy much of the increasing demand (many geothermal opportunities are on National Forest land). Clearly, if the United States is not to hazard the serious international economic and political repercussions that attend large-scale importing, we must look to greater use of our own sources of low-sulfur coal, oil, and natural gas. Of the three, only coal has the certain capacity to meet projected demands. Demand for coal is expected to rise 30 percent per decade until the year 2000 (National Petroleum Council, 1972).

Most domestic low-sulfur coal lies in Wyoming, Montana, North Dakota, Colorado, Utah, Arizona, and New Mexico. It has been estimated that the western States will see a six-fold increase in coal production--300 to 350 billion tons by 1985, about two-thirds of present consumption (National Petroleum Council, 1972). A large but still unknown amount underlies the National Forests. But resistance to western coal development is building as environmentalists and surface owners become aware of the potential effects of large-scale surface mining.

Special Uses

Related to the increasing recreation demands is the boom in development and use of second homes and related facilities. Second-home buyers look for clear air, water, climate relief, and esthetics, and they often find them within and adjacent to forests. Establishment of second-home areas generates demands for roads, powerlines, water, and sanitation facilities which have an impact on the Nation's forests.

Increasing energy consumption often requires forest land for electric transmission lines and pipelines. Reservoirs and relocated facilities for water power, irrigation, flood control, and culinary water are other uses for the Nation's forest land.

The increased demands for recreation and commodity products, particularly wood, minerals, and energy fuels, will also greatly accelerate demand for new access over National Forest land as well as for roads serving private ownerships.

ECONOMIC IMPORTANCE OF NATIONAL FOREST AND NATIONAL GRASSLANDS

- (1) They produced a cash income in fiscal year 1974 of \$485.7 million. Approximately 65 percent of this amount is credited to the general fund in the Federal Treasury (miscellaneous receipts). The remainder is distributed in accordance with special acts of Congress, including 25 percent to the States or counties in which lands are located, and 10 percent made available for construction and maintenance of the Forest Service system of roads and trails. In addition to these cash receipts, there are the even greater economic values which result from the processing of end products derived from this utilization of National Forest timber, forage, and minerals. Recreation, wildlife and water result in important economic activity in local, State, and national economies. There are also important intangible values of water, recreation, and wildlife such as the esthetic enjoyment of natural beauty.
- (2) The area within National Forests boundaries is equivalent to some 10 percent of the area of the continental United States. Over 24 percent of this land is within areas now experiencing economic distress. Proper management, development, and utilization of these lands are important factors in permanent improvement of these local economies. Millions of people who live in and near the National Forests are supported in whole or in part through the economic development arising from the forests and their resources. These resources offer a renewable resource base for developing stable prosperous and vigorous local economies and communities.
- (3) The National Forests supplied 13.0 billion board feet of timber in fiscal year 1974 to the Nation's forest products industries. This is expected to remain relatively constant at 13.1 billion board feet in 1976. Dependence of the forest products industries on National Forest timber continues to increase as the result of depletion of good quality timber on private lands. In some areas, the dependence of local industry on National Forest timber is almost 100 percent. Without this supply some small communities could not exist.
- (4) About 3.12 million head of domestic livestock (mature animals) are grazed on the National Forests and Grasslands. In many local areas this is a major industry. Without such Federal rangelands the economic activity would be drastically curtailed from currently depressed levels.
- (5) These lands provide about 390 million acre feet of high quality water annually. The lands also provide protection to municipal water supplies for nearly all western cities and towns and many in the East, to irrigation water used on about 20 million acres of western lands, and to many streams with water power

developments. They provide flood protection to thousands of acres of rich valley lands and help to prevent more rapid siltation of reservoirs and stream channels. A dependable water supply is an important prerequisite for economic and community development.

- (6) They provide habitat for a large part of the big game animal population, for birds, for millions of small game animals, furbearers, and for fish. Hunters, fishermen, and appreciative wildlife users (photographers and birdwatchers) constitute an important supplementary source of income for numerous communities, many of which are economically depressed. These lands provide habitat for 58 endangered and threatened fish and wildlife species.
- (7) They provide opportunities for healthful outdoor recreation, with a minimum of restrictions. Outdoor recreation is an important source of supplementary income in most areas as well as providing recreational opportunities for local residents. In some relatively depressed communities it becomes even more important.

THE FOREST AND RANGELAND RENEWABLE RESOURCES PLANNING ACT

The Forest and Rangeland Renewable Resources Planning Act (PL 93-378), also referred to as the Resources Planning Act (RPA), was passed August 17, 1974. It calls for long-range planning by the Forest Service to insure that the U.S. has an adequate supply of forest resources in the future, while maintaining the quality of the environment.

The Act contains two major requirements. The Forest Service must periodically submit to Congress a Renewable Resource Assessment and a long-range Renewable Resource Program. Both these documents are due for the first time on December 31, 1975.

Congress has required that the Renewable Resource Assessment must consider all forest, range and related lands in the United States. The first assessment will probably be modeled on past timber outlook reports, but will be expanded to include all forest resources.

The assessment must include:

- (1) An analysis of the present and anticipated uses, demand for, and supply of renewable resources, including a consideration of the international resource situation.
- (2) An inventory of present and potential renewable resources, and opportunities for improving their yield of goods and services, with estimates of the investment costs and returns to the Federal Government.
- (3) A description of Forest Service research and cooperative programs, and the management of the National Forest System, including the relationship of these programs to public and private activities.
- (4) A discussion of important policy considerations, laws and other factors which might affect the use, ownership and management of forest, range and related lands.

As mentioned earlier, the first assessment is due December 31, 1975, and is to be updated in 1979, and every ten years thereafter.

The Renewable Resource Program is to be a long-range plan for all Forest Service programs, including the National Forest System, Research and State and Private Forestry efforts.

The program must include:

- (1) An inventory of specific needs and opportunities for both public and private program investments.
- (2) Specific identification of program outputs and the anticipated results and benefits of Forest Service programs.

(3) A discussion of priorities for accomplishing these opportunities, with specified costs, outputs, results, and benefits.

(4) A detailed study of personnel requirements needed for existing programs.

The first program is due December 31, 1975, and must cover the four-year period beginning October 1, 1976, and at least each of the four fiscal decades following. The program must be updated every five years, always planning at least 45 years ahead.

Since the first program and assessment are due at the end of 1975, the task is being given top priority. A project team is developing both the assessment and the program. The team includes a policy group, an assessment group, a program group, and an external relations group. The project team is being guided by a steering committee chaired by the Deputy Chief for Programs and Legislation. In fiscal year 1975 the work is being accomplished under present manpower and budget ceilings, with Washington office personnel providing most of the manpower, and field personnel being brought in as needed. Additional funds and manpower are proposed for fiscal year 1976 for preparing and submitting the initial assessment and program and developing techniques for acquiring resource data for subsequent assessments.

The first assessment and program are being developed with existing proposals, programs and data sources. The Environmental Program for the Future will provide a starting point for developing the program, and such studies as the Timber Outlook Report will create a foundation for the assessment.

The principles outlined in the National Environmental Policy Act will be utilized in preparing the program, and in informing and involving the public throughout the development process. The six resource systems approach used in EPFF will be used in this program document. The full range of Forest Service responsibilities for the National Forest System, Research, and State and Private Forestry, will be addressed within and across the systems.

The Resources Planning Act has important implications for the budget process. Our fiscal year 1977 budget proposal will relate directly to the first year of the program called for by the Act. The Act will lead to development of a basic framework for development and consideration of annual appropriation requests in relation to the long-term goals and objectives which characterize forest and rangeland resources planning.

IMPLEMENTATION OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

Section 19 of the Occupational Safety and Health Act of 1970 (84 Stat. 1590, as amended, and E.O. 11807 of September 28, 1974, require Federal agencies to change their approach to safety.

During fiscal year 1976 the Forest Service plans to design the OSHA inspection system, provide training and monitoring equipment, and implement the first inspections. The system developed for reporting unsafe and unhealthful conditions will also be implemented. We will continue to consider on-going needs for:

- (1) Personal protective equipment.
- (2) Engineering modifications of equipment and facilities which are imminently hazardous.

- (3) Signs required by OSHA.
- (4) Servicing the medical and first aid program.
- (5) Machinery guarding.
- (6) Other standards which are in imminent need of correction.

ENVIRONMENTAL IMPACT STATEMENTS

The National Environmental Policy Act of 1969 (Sec. 102) (PL 91-190) requires that all agencies of the Federal Government prepare a detailed statement on the environmental impact, adverse environmental effects, alternatives to the proposal, and other factors for major Federal actions significantly affecting the quality of the human environment. In the preparation of the statement, agencies are required to utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on the environment.

The Forest Service is charged with the management of one-tenth of the Nation's land and many Forest Service activities have an impact on the environment. In the preparation of an environmental impact statement the Forest Service has endorsed the concept of interdisciplinary analysis and has formed local teams of foresters, engineers, landscape architects, geologists, hydrologists, archaeologists, social scientists, and other specialists to examine areas and prepare the statements on plans and projects. The first statement is a draft and it is widely circulated to other Federal agencies, State, and local governmental jurisdictions, environmental special interest groups, and others of the general public that will be impacted or have expressed an interest through contacts with the team as they prepared the statements. All comments and questions received concerning the draft statement are answered in writing and both the comment/question and its answer are included in the final statement. The planned activity will then be conducted in accordance with the findings of the final environmental statement.

The 1976 budget proposes funding increases to conduct environmental analyses, coordinate review and prepare draft and final impact statements on 34 roadless or undeveloped areas containing 1,525,000 acres, which are estimated to contain 1.8 billion board feet of timber. For comparison purposes, this is an area larger than the State of Delaware (1,316,480 acres). These statements are necessary to comply with PL 91-190 and stipulations agreed to in *Sierra Club vs Butz, et.al.* (Circular No. 72-1455 SC) filed in the San Francisco District Court on December 11, 1972, which requires that an environmental statement be filed with the Council on Environmental Quality before any actions are taken which change the wilderness character of any roadless area listed in the 1971 roadless area inventory. The cost of carrying out this effort averages \$65,000 per area.

The \$2.2 million increase requested is distributed as follows:

<u>Project No.</u>	<u>Activity</u>	<u>Amount</u>
(1a)	Timber sales administration and management (inventory and plans)	\$550,000
(2)	Recreation use	550,000
(3)	Wildlife and fish habitat management	30,000
(4)	Rangeland management	330,000
(5)	Soil and water management	220,000
(6)	Minerals management	220,000

ORGANIZATIONAL STRUCTURE

The Forest Service maintains its central office in Washington with program activities decentralized to 9 regional offices, 123 forest supervisors' offices, 675 district rangers' offices, 2 State and private forestry area offices, 8 forest and range experiment stations, the Institute of Tropical Forestry, and the Forest Products Laboratory. Location of headquarters offices:

Regional offices:	Missoula, Montana	Portland, Oregon
	Denver, Colorado	Atlanta, Georgia
	Albuquerque, New Mexico	Milwaukee, Wisconsin
	Ogden, Utah	Juneau, Alaska
	San Francisco, California	

State and private forestry area offices: Upper Darby, Pennsylvania
Atlanta, Georgia

Experiment stations:	Ogden, Utah	Berkeley, California
	St. Paul, Minnesota	Fort Collins, Colorado
	Upper Darby, Pennsylvania	Asheville, North Carolina
	Portland, Oregon	New Orleans, Louisiana

Forest Products Laboratory: Madison, Wisconsin

Institute of Tropical Forestry: Rio Piedras, Puerto Rico

National Forest, National Grasslands, and Utilization lands administered by the Forest Service are located in all States except the following six:

Delaware	Massachusetts
Hawaii	New Jersey
Maryland	Rhode Island

Summary of Estimated Appropriations and Receipts

Page: No.:	Item	Available 1974 1/	Estimated available 1975 2/	Budget estimates 1976	Change 1976 over 1975
	<u>Appropriated Funds</u>				
	Forest protection and utilization:				
31	Forest land management 3/	\$387,966,000	\$304,362,000	\$338,297,000	+\$33,935,000
95	Forest research	64,785,000	77,612,000	79,211,000	+1,599,000
127	State and private for- estry cooperation	28,181,000	29,863,000	30,222,000	+359,000
	Total, Forest pro- tection and utilization:	480,932,000	411,837,000	447,730,000	+35,893,000
146	Construction and land acquisition 3/	27,093,000	31,337,000	14,475,000	-16,862,000
164	Forest roads and trails 3/	97,700,000	124,578,000	108,225,000	-16,353,000
179	Acquisition of lands for National Forests, Special Acts	94,000	161,000	161,000	- -
184	Acquisition of lands to com- plete land exchanges	55,300	39,310	35,410	-3,900
187	Acquisition of lands, Klamath Indians	- -	49,000,000	- -	-49,000,000
144	Cooperative range improve- ments	700,000	700,000	700,000	- -
189	Assistance to States for tree planting 3/	1,013,000	1,355,000	1,359,000	+4,000
199	Construction and operation of recreation facilities 3/	3,277,838	1,260,000	3,674,000	+2,414,000
217	Youth conservation corps 3/	10,000,000	10,392,000	10,400,000	+8,000
	<u>Permanent Appropriations</u>				
233	Expenses, brush disposal 3/	25,199,361	30,000,000	33,000,000	+3,000,000
232	Roads and trails for States; National Forests Fund ...	45,468,547	47,003,064	47,975,000	+971,936
234	Licensee Programs 3/	209,432	265,000	250,000	-15,000
236	Restoration of forest lands; and improvements 3/	68,205	50,000	50,000	- -
237	Payment to Minnesota (Cook, Lake, and St. Louis Counties) from the National Forests Fund	259,038	259,038	259,038	- -
238	Payments to Counties, National Grasslands	586,381	586,000	586,000	- -
239	Payments to school funds, Arizona and New Mexico ..	124,307	190,862	191,000	+138
240	Payments to States, National Forests Fund	113,668,668	119,482,282	117,862,000	-1,620,282
	Total	806,449,077	828,495,556	786,932,448	-41,563,108
	Deduct permanent appropri- ations shown above	185,583,939	197,836,246	200,173,038	+2,336,792
	Total (excluding perma- nent appropriations)	620,865,138	630,659,310	586,759,410	-43,899,900
	<u>Receipts</u>				
	Timber sales	447,604,898	452,905,000	485,000,000	+32,095,000
	Grazing	6,647,388	6,650,000	7,450,000	+800,000
	Power	265,078	250,000	275,000	+25,000
	Recreation	5,083,778	5,100,000	5,500,000	+400,000
	Land uses	1,247,937	1,400,000	1,600,000	+200,000
	Mineral leases and permits	7,465,684	8,000,000	8,500,000	+500,000
	Admission and user fees ..	2,060,701	5,500,000	6,000,000	+500,000
	National grasslands and land utilization	2,992,774	3,200,000	3,850,000	+650,000
	Oregon and California grant lands: 4/				
	Timber sales	12,280,074	15,000,000	15,000,000	- -
	Other	35,577	- -	- -	- -
	Total receipts	485,683,889	498,005,000	533,175,000	+35,170,000

- 1/ Excludes GSA space transfers of \$574,000 (Forest land management, \$559,000 and Forest research, \$15,000). Includes \$11.8 million of trust funds used for fighting forest fires repaid in fiscal year 1975.
- 2/ Includes proposed supplementals for increased pay costs. Excludes proposed supplemental for fighting forest fires, \$100 million, and rescission of enacted appropriation pending, \$14,921,000 (Forest land management, \$10 million, R75-10, and State and private forestry cooperation, \$4,921,000, R75-9).
- 3/ In addition, prior year balances are available.
- 4/ Account established for Oregon and California railroad grant lands, for which receipts are transferred to Department of the Interior for distribution under the Acts of August 28, 1937, June 24, 1954, and August 3, 1961 (43 USC 1181f-g).

Summary of Estimated Appropriations and Receipts--Transition Period

Page: No.:	Item	7/1-9/30/76
	<u>Appropriated Funds</u>	
	: Forest protection and utilization:	
87	: Forest land management	\$111,388,000
125	: Forest research	21,550,000
142	: State and private forestry cooperation	9,202,000
	: Total, Forest protection and utilization	142,140,000
159	: Construction and land acquisition	1/ 11,074,000
195	: Assistance to States for tree planting	1/ 829,000
204	: Construction and operation of recreation facilities	1/ 2,212,000
223	: Youth conservation corps	1/ 8,054,000
	<u>Permanent Appropriations</u>	
246	: Expenses, brush disposal	1/ 9,000,000
178	: Roads and trails for States, National Forests Fund	51,600,000
246	: Licensee Programs	1/ 75,000
246	: Restoration of forest lands and improvements	1/ 15,000
246	: Payment to Minnesota (Cook, Lake, and St. Louis Counties)	
	: from the National Forests Fund	259,000
246	: Payment to Counties, National Grasslands	310,000
246	: Payments to school funds, Arizona and New Mexico	191,000
246	: Payments to States, National Forests Fund	129,000,000
	: Total	354,759,000
	: Deduct permanent appropriations shown above	190,450,000
	: Total (excluding permanent appropriations)	164,309,000
	<u>Receipts</u>	
	: Timber sales	150,000,000
	: Grazing	500,000
	: Power	5,000
	: Recreation	605,000
	: Land uses	100,000
	: Mineral leases and permits	1,900,000
	: Admission and user fees	4,400,000
	: National grasslands and land utilization	1,240,000
	: Oregon and California grant lands	2/ 4,800,000
	: Total receipts	163,550,000

1/ In addition, prior year balances are available.

2/ Account established for Oregon and California railroad grant lands, for which receipts are transferred to Department of the Interior for distribution under the Acts of August 28, 1937, June 24, 1954, and August 3, 1961 (43 USC 1181f-g).

JOB CORPS CIVILIAN CONSERVATION CENTERS

(Funds transferred to Forest Service by Department of Labor)

	: Available 1974		: Estimate 1975		: Estimate 1976	
	: No. of	: Amount	: No. of	: Amount	: No. of	: Amount
	: Permanent:	(in	: Permanent:	(in	: Permanent:	(in
	: Positions:	thousands)	: Positions:	thousands)	: Positions:	thousands)
Center capital	- -	\$1,799	- -	\$119	- -	\$119
Center operations .	788	24,946	735	23,774	735	24,381
Program direction .	76	1,869	80	1,452	80	1,477
Total	864	28,614	815	25,345	815	25,977

NOTE: Fiscal years 1975 and 1976 estimates are based on best information available to the Forest Service as of January 13, 1975.

DEPARTMENT OF AGRICULTURE
FOREST SERVICE

A-11-35

CONSOLIDATED SCHEDULE OF PERMANENT POSITIONS PAID
FROM FUNDS AVAILABLE TO THE FOREST SERVICE
DETAIL OF PERMANENT POSITIONS

	1974 actual	1975 estimate	1976 estimate
Executive level V	1	1	1
GS-18	4	4	4
GS-17	8	9	9
GS-16	39	39	39
GS-15	184	206	215
GS-14	474	510	510
GS-13	1,329	1,385	1,424
GS-12	2,287	2,348	2,388
GS-11	3,591	3,661	3,729
GS-10	63	61	63
GS-9	3,993	4,025	4,106
GS-8	113	121	126
GS-7	3,252	3,312	3,373
GS-6	922	908	921
GS-5	2,416	2,418	2,472
GS-4	1,745	1,712	1,739
GS-3	538	515	524
GS-2	56	55	63
GS-1	11	8	20
Subtotal	21,026	21,298	21,726
Grades established by Act of June 20, 1953 (72 Stat. 213) and Act of September 23, 1959 (73 Stat. 651):			
Research Forester	3	3	3
Forest Products Technologist	1	1	1
Subtotal	4	4	4
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DEPARTMENT OF AGRICULTURE
FOREST SERVICE

A-11-35

CONSOLIDATED SCHEDULE OF PERMANENT POSITIONS PAID
FROM FUNDS AVAILABLE TO THE FOREST SERVICE
DETAIL OF PERMANENT POSITIONS

	1974 actual	1975 estimate	1976 estimate
Grades established by the Administrator, Agency for International Development:			
FC-12	2	3	3
FC-11	1	- -	- -
FC-10	7	7	7
Subtotal	10	10	10
Ungraded	1,136	1,074	1,180
Total permanent positions	22,176	22,386	22,920
Unfilled positions, June 30	-2,707	-2,781	-2,824
Total permanent employment, end of year	19,469	19,605	20,096

The Forest Service is responsible for promoting the conservation and wise use of the country's forest, range, and related watershed lands which comprise about one-third of the total land area of the United States. There are fourteen separate appropriation accounts and four payment accounts in the Forest Service budget, and at least ten appropriation activities representing allocations from other agencies which are required to carry out Forest Service responsibilities. The Forest Service is organized to meet the overall responsibilities, not to meet the responsibility of each activity. An employee or group of employees may work on several activities during the course of a year. It is not possible to determine the positions involved in a single activity. Therefore, a consolidated schedule of permanent positions is presented.

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DEPARTMENT OF AGRICULTURE

OFFICE OF THE SECRETARY

WASHINGTON, D. C.
10/10/10

TO THE SECRETARY OF AGRICULTURE
FROM THE SECRETARY OF AGRICULTURE
SUBJECT: [Illegible]

[Illegible text follows]

[Illegible text follows]

FOREST PROTECTION AND UTILIZATION

	Forest Land Management a/	Forest Research	State and Private Forestry Cooperation	Total
Appropriation, 1975 ...	\$314,362,000	\$77,612,000	\$34,784,000	\$426,758,000
Estimate, 1976	338,297,000	79,211,000	30,222,000	447,730,000
Change	+23,935,000	+1,599,000	-4,562,000	+20,972,000
Adjustments to 1975				
appropriation:				
Appropriation, 1975 .	306,119,000	75,402,000	34,638,000	416,159,000
Proposed supplemental for pay costs	8,243,000	2,210,000	146,000	10,599,000
Adjusted base for 1976	314,362,000	77,612,000	34,784,000	426,758,000
Estimate, 1976	338,297,000	79,211,000	30,222,000	447,730,000
Change	+23,935,000	+1,599,000	-4,562,000	+20,972,000

a/ In addition, \$700,000 is available by transfer from Cooperative Range Improvements.

SUMMARY OF INCREASES AND DECREASES

(On basis of adjusted appropriation--dollars in thousands)

	Increase or Decrease (-)			Total
1/	Pay Costs, CSA Space and Proposed Rescissions	Permanent Full-time Program	Permanent Full-time Positions	Total Permanent Full-time Positions
<u>Forest land management:</u>				
<u>Sales administration and management</u> --Increase is needed for timber sales preparation of 11.858 MMBF (\$10,825,000) and for costs associated with roadless area environmental impact statements (\$550,000). Added emphasis on sales preparation enables a reduction in harvest administration of \$1,216,000.				
	\$1,390	\$10,159	193	\$98,124 3,824
<u>Reforestation and stand improve-</u>				
<u>ment</u> --Increase in program from current estimate, based on Congressional approval of rescission (R75-10), will provide reforestation and stand improvement on an additional 45,050 acres .				
	-9,576	+5,000	40	46,686 694
<u>Recreation use</u> --Increase consists of \$760,000 for maintenance of sanitary landfills; \$782,000 for operation of new pollution abatement facilities; \$550,000 for costs of roadless area environmental impact statements; and \$343,000 is for landscape and design effort in support of timber sale activities.				
573	2,435	34	51,130	1,484

SUMMARY OF INCREASES AND DECREASES--continued
(On basis of adjusted appropriation--dollars in thousands)

	Increase or Decrease (-)			Total	
1/	Pay Costs, GSA Space and Proposed Rescissions	Permanent Full-time Program Positions	Total 1976 Estimate	Permanent Full-time Positions	
<u>Forest land management--continued</u>					
<u>Wildlife and fish habitat management--</u> Increase consists of \$936,000 to protect and enhance threatened and endangered species; \$330,000 for costs of roadless area environmental impact statements; and \$441,000 for coordination of wildlife biological needs and requirements with timber sale activities.					
	\$194	\$1,707	29	\$11,360	378
<u>Rangeland management--</u> Increase consists of \$330,000 for costs of roadless area environmental impact statements and \$74,000 for coordination of rangeland management needs with timber sale activities.					
	158	404	6	17,732	608
<u>Soil and water management--</u> Increase consists of \$220,000 for costs of roadless area environmental impact statements and \$178,000 for protection of critical soils and unstable slopes and enhancement of water production in support of timber sale activities.					
	215	398	6	17,119	545
<u>Minerals management--</u> Increase consists of \$2,600,000 to carry out new mining regulations; \$220,000 for costs of roadless area environmental impact statements; and \$242,000 for coordination of minerals management needs with timber sale activities.					
	168	3,062	58	6,943	222
<u>Forest fire protection--</u> Increase is for fuel modification and fire prevention in support of the timber sale program.					
	391	311	4	37,904	1,238
<u>General land management activities--</u> Net increase consists of \$1,511,000 to improve the standards of administration of special uses; \$1,684,000 for marking land lines and monuments, maintenance of facilities and coordination of special uses needs in support of timber sale activities; \$301,000 for maintenance of fire and general purposes facilities required to maintain health and safety; and \$471,000 to reimburse the Employees' Compensation Fund. This increase is offset by a decrease of \$20,000 for non-recurring cost of the special Bicentennial and Forestry Centennial booklet.					
	578	3,947	60	31,509	881
<u>Fighting forest fires</u>	- -	- -	- -	4,275	354
<u>Forest insect and disease control</u>	117	- -	- -	11,579	225

SUMMARY OF INCREASES AND DECREASES--continued
(On basis of adjusted appropriation--dollars in thousands)

	Increase or Decrease (-)			Total
1/ Pay Costs, GSA Space and Proposed Rescissions	Permanent Full-time	Program Positions	Total 1976 Estimate	Permanent Full-time Positions
<u>Forest land management--continued</u>				
<u>Cooperative law enforcement--</u>				
Increase is to provide sufficient funds to meet contract commitments.	\$47	\$2,257	- -	\$3,936 45
Subtotal, Forest land manage- ment	-5,745	29,680	430	338,297 10,498
<u>Forest research:</u>				
<u>Trees and timber management</u>				
research--Decrease is based on the discontinuation of research in which there was a minimum of funds invested in order to finance research require- ments under new legislation.	203	-287	-3	14,451 649
<u>Forest watershed management research--</u>				
Decrease is based on the discontinu- ation of research in which there was a minimum of funds invested in order to finance research requirements under new legislation.	55	-1,300	-12	7,282 269
<u>Wildlife, range, and fish habitat</u>				
research--Net increase consists of: \$911,000 to accelerate research to guide implementation of the Endangered Species Act and a decrease of \$1,011,000 based on discontinuance of research in which there was a minimum of funds invested in order to finance research requirements under new legislation.	72	-100	-1	5,196 150
Forest recreation research	16	- -	- -	1,267 50
Surface environment and mining ..	34	- -	- -	2,298 6
Fire and atmospheric sciences research	86	- -	- -	8,299 244
Forest insects and disease research	262	- -	- -	18,145 459
<u>Forest products utilization research--</u>				
Increase will be used to accelerate research on developing an industrially suitable technology for producing a structural particleboard that will be useful as a substitute for sheathing plywood and improving sawmill techniques that are now being applied on a massive scale	169	681	7	11,147 438
Forest engineering research	14	- -	- -	1,643 55
<u>Forest resources evaluation--Increase</u>				
will be used for preparing and sub- mitting the initial assessment and program, and for developing techniques for acquiring and analyzing resource data for subsequent assessments as required by the Forest and Rangeland Renewable Resources Planning Act (PL 93-378).	125	1,516	15	5,559 182
<u>Forest economics and marketing</u>				
research	53	-	- -	3,924 137
Subtotal, Forest Research	1,089	510	6	79,211 2,639

SUMMARY OF INCREASES AND DECREASES--continued
(On basis of adjusted appropriation--dollars in thousands)

	<u>Increase or Decrease (-)</u>			<u>Total</u>	
<u>1/ Pay Costs,</u>				<u>Permanent</u>	
<u>GSA Space</u>		<u>Permanent</u>	<u>Total 1976</u>	<u>Full-time</u>	
<u>and Proposed</u>	<u>Program</u>	<u>Positions</u>	<u>Estimate</u>	<u>Positions</u>	
<u>Rescissions</u>					
<u>State and private forestry</u>					
<u>cooperation:</u>					
<u>Cooperation in forest fire con-</u>					
<u>trol--There will be no program</u>					
<u>level change from current estimates</u>					
<u>based on Congressional approval of</u>					
<u>proposed rescission (R75-9).</u>					
-4,878	- -	- -	20,257	56	
<u>Cooperation in forest tree planting</u>					
1	- -	- -	337	4	
<u>Cooperation in forest management</u>					
<u>and processing</u>					
15	- -	- -	5,605	31	
<u>General forestry assistance--</u>					
<u>Increase is to protect threatened</u>					
<u>and endangered species.</u>					
100	200	3	4,023	98	
<u>Subtotal, State and private</u>					
<u>forestry cooperation</u>					
-4,762	200	3	30,222	189	
<u>Total appropriation, Forest Protection</u>					
<u>and Utilization</u>					
-9,418	30,390	439	447,730	13,326	

1/ Includes pay costs and GSA space cost increases (\$5,503,000) and rescissions now pending for Reforestation and stand improvement (\$10 million) and Cooperation in forest fire control (\$4,921,000).

PROJECT STATEMENT

(On obligation basis)

Project	1974	1975	1976	Estimate	Estimate	Pay Costs	GSA Space	Increase or Decrease
FOREST LAND MANAGEMENT:								
National Forest protection and management:								
(1) Timber resource management:								
(a) Sales administration and management	\$80,857,019:	\$86,575,000:	\$98,124,000:	\$1,335,000:	\$55,000:	\$10,159,000		
(b) Reforestation and stand improvement	31,408,722:1/41,262,000:	46,686,000:	51,130,000:	253,000:	171,000:	5,000,000		
(2) Recreation use	44,994,265:	48,122,000:	51,130,000:	542,000:	31,000:	2,435,000		
(3) Wildlife and fish habitat management	8,424,570:	9,459,000:	11,360,000:	164,000:	30,000:	1,707,000		
(4) Rangeland management	15,248,826:	17,870,000:	18,432,000:	158,000:	-:	404,000		
(5) Soil and water management	14,958,130:	16,506,000:	17,119,000:	176,000:	39,000:	398,000		
(6) Minerals management	3,359,103:	3,713,000:	6,943,000:	168,000:	-:	3,062,000		
(7) Forest fire protection	36,241,863:2/37,208,316:	37,904,000:	37,904,000:	337,000:	54,000:	304,684		
(8) General land management activities	25,855,444:	26,984,000:	31,509,000:	564,000:	14,000:	3,947,000		
Subtotal	261,347,942:	287,699,316:	319,207,000:	3,697,000:	394,000:	27,416,684		
Amount advanced from Cooperative Range Improvements	-700,000:	-700,000:	-700,000:	-:	-:	-:		
Subtotal, National Forest protection and management	260,647,942:	286,999,316:	318,507,000:	3,697,000:	394,000:	27,416,684		
(9) Fighting forest fires	106,875,000:3/4,275,000:	4,275,000:	4,275,000:	-:	-:	-:		
(10) Forest insect and disease control	14,989,457:2/14,060,978:	11,579,000:	11,579,000:	82,000:	35,000:	-2,598,978		
(11) Cooperative law enforcement	2,794,727:2/4,426,684:	3,936,000:	3,936,000:	34,000:	13,000:	-537,684		
Total, Forest Land Management	385,307,126:	309,761,978:	338,297,000:	3,813,000:	442,000:	24,280,022		
FOREST RESEARCH:								
Forest and range management research:								
(12) Trees and timber management research	13,466,991:	14,535,000:	14,451,000:	167,000:	36,000:	-287,000		
(13) Forest watershed management research	6,709,857:	8,527,000:	7,282,000:	45,000:	10,000:	-1,300,000		
(14) Wildlife, range, and fish habitat research	4,566,478:	5,224,000:	5,196,000:	60,000:	12,000:	-100,000		
(15) Forest recreation research	1,466,141:	1,251,000:	1,267,000:	13,000:	3,000:	-:		
(16) Surface environment and mining	1,811,618:	2,264,000:	2,298,000:	26,000:	8,000:	-:		
Subtotal, Forest and range management research	28,021,085:	31,801,000:	30,494,000:	311,000:	69,000:	-1,687,000		
Forest protection research:								
(17) Fire and atmospheric sciences research	7,519,115:	8,213,000:	8,299,000:	67,000:	19,000:	-:		
(18) Forest insects and disease research	10,710,734:	17,883,000:	18,145,000:	217,000:	45,000:	-:		
Subtotal, Forest protection research	18,229,849:	26,096,000:	26,444,000:	284,000:	64,000:	-:		

PROJECT STATEMENT--continued
(On obligation basis)

Project	1974	1975	1976	Increase or Decrease	
		Estimate	Estimate	Pay Costs	GSA Space: Program
FOREST RESEARCH--continued					
Forest products and engineering research:					
(19) Forest products utilization research	9,272,918:	10,297,000:	11,147,000:	159,000:	10,000: 681,000
(20) Forest engineering research	1,739,649:	1,629,000:	1,643,000:	11,000:	3,000: -
Subtotal, Forest products and engineering research:	11,012,567:	11,926,000:	12,790,000:	170,000:	13,000: 681,000
Forest resource economics research:					
(21) Forest resources evaluation	3,707,928:	3,918,000:	5,559,000:	111,000:	14,000: 1,516,000
(22) Forest economics and marketing research ..	3,740,686:	3,871,000:	3,924,000:	44,000:	9,000: -
Subtotal, Forest resource economics research	7,448,614:	7,789,000:	9,483,000:	155,000:	23,000: 1,516,000
Total, Forest Research	64,712,115:	77,612,000:	79,211,000:	920,000:	169,000: 510,000
STATE AND PRIVATE FORESTRY COOPERATION:					
(23) Cooperation in forest fire control	20,063,751.1/	20,214,000:	20,257,000:	7,000:	36,000: -
(24) Cooperation in forest tree planting	319,116:	336,000:	337,000:	1,000:	- - -
(25) Cooperation in forest management and processing	5,025,944:	5,590,000:	5,605,000:	8,000:	7,000: -
(26) General forestry assistance	2,450,012:	3,723,000:	4,023,000:	32,000:	68,000: 200,000
Total, State and Private Forestry Cooperation	27,858,823:	29,863,000:	30,222,000:	48,000:	111,000: 200,000
Total obligations or estimate	477,878,064:	417,236,978:	447,730,000:	4,781,000:	722,000: 24,990,022
Unobligated balance brought forward	-3,391,484:	-5,399,978:	- - -	- - -	- - - 5,399,978
Unobligated balance carried forward	5,399,978:	- - -	- - -	- - -	- - - -
Unobligated balance lapsing	1,045,900:	1/14,921,000:	- - -	- - -	- - - -14,921,000
Total available or estimate	480,932,458:	426,758,000:	447,730,000:	4,781,000:	722,000: 15,469,000
Supplemental appropriations	- - -	-10,599,000:	- - -	- - -	- - - -
Transfer to General Services Administration for space rental	573,542:	- - -	- - -	- - -	- - - -
Transfer from other accounts	-11,800,000:	- - -	- - -	- - -	- - - -
Appropriation or estimate	469,706,000:	416,159,000:	- - -	- - -	- - - -
1/ Excludes \$14,921,000 rescission of enacted appropriation now pending (R75-9 and R75-10).					
2/ Includes 1974 unobligated balances carried forward--Forest fire protection \$6,316					
Cooperative law enforcement 2,794,684					
Forest insect and disease control 2,598,978					
3/ Excludes proposed supplemental for fighting forest fires, \$100 million. 5,399,978					

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST PROTECTION AND UTILIZATION

A-11-32a

Program and Financing (in thousands of dollars)--continued

Identification code	19 74 actual	19 75 estimate	19 76 estimate
05-96-1100-0-1-302			
Relation of obligations to outlays:			
71 Obligations incurred, net	466,078	417,237	447,730
72 Obligated balance, start of year	53,745	81,507	70,556
74 Obligated balance, end of year	-81,507	-70,556	-62,957
77 Adjustments in expired accounts	2,549	.....	.....
90 Outlays, excluding pay raise supplemental	440,866	418,500	454,418
91.20 Outlays from civilian pay raise supplemental .....	.....	9,688	911

1/ Includes capital outlay as follows: 1974, \$9,192 thousand; 1975, \$12,000 thousand; 1976, \$15,000 thousand.

(Mono cast: 21.5)

(Mono cast: 5)

(Mono cast: 5)

(Mono cast: 4.0)

(Supplemental now requested)

A-11-39b

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST PROTECTION AND UTILIZATION

Program and Financing (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
05-96-1100-1-1-302			
<u>Program by activities:</u>			
Fighting forest fires	84,000	.....
10 Total (costs--obligations)	84,000	.....
<u>Financing:</u>			
40 Budget authority (proposed supplemental appropriation)	84,000	.....
<u>Relation of obligations to outlays:</u>			
71 Obligations incurred, net	84,000	.....
90 Outlays	84,000	.....

NOTE The above estimate of \$84 million
was changed to \$100 million on February 1, 1975.

GEOGRAPHIC BREAKDOWN OF APPROPRIATION

National Forest Protection and Management

	1975 <u>estimate</u>	1976 <u>estimate</u> (in thousands)	<u>Increase</u>
Alabama	\$2,502	\$2,776	\$274
Alaska	8,800	9,763	963
Arizona	11,596	12,866	1,270
Arkansas	6,848	7,598	750
California	50,684	56,243	5,559
Colorado	11,121	12,339	1,218
District of Columbia	14,559	16,153	1,594
Florida	2,230	2,475	245
Georgia	2,362	2,621	259
Idaho	24,476	27,157	2,681
Illinois	912	1,012	100
Indiana	683	758	75
Kansas	55	61	6
Kentucky	2,000	2,219	219
Louisiana	2,331	2,586	255
Maine	62	69	7
Maryland	126	140	14
Michigan	5,340	5,924	584
Minnesota	5,771	6,403	632
Mississippi	3,165	3,511	346
Missouri	3,442	3,818	376
Montana	18,779	20,836	2,057
Nebraska	328	364	36
Nevada	2,585	2,868	283
New Hampshire	1,568	1,740	172
New Mexico	9,102	10,098	996
New York	24	27	3
North Carolina	3,183	3,532	349
North Dakota	292	324	32
Ohio	663	736	73
Oklahoma	496	550	54
Oregon	36,585	40,591	4,006
Pennsylvania	1,738	1,928	190
Puerto Rico	282	313	31
South Carolina	2,138	2,372	234
South Dakota	2,977	3,303	326
Tennessee	2,110	2,341	231
Texas	2,715	3,012	297
Utah	9,526	10,569	1,043
Vermont	716	794	78
Virginia	3,488	3,870	382
Washington	17,176	19,057	1,881
West Virginia	1,940	2,153	213
Wisconsin	3,289	3,650	361
Wyoming	6,928	7,687	759
Rescission of enacted appropriation pending (R75-10)	10,000	- -	-10,000
Total	297,693	319,207	21,514

TIMBER RESOURCE MANAGEMENT - Sales administration and management

		Permanent full-time positions
1974	<u>1/</u> \$79,463,000	<u>3,560</u>
1975	86,575,000	3,631
1976	98,124,000	3,824
Change	<u>+11,549,000</u>	<u>+193</u>

A net increase of \$11,549,000, with an increase of 193 permanent full-time positions, is proposed as follows:

- (1) Increase of \$10,825,000 to prepare 11,858 million board feet of timber.
Depending on market conditions, approximately 2,000 million board feet would be available for carryover into fiscal year 1977
- (2) Increase of \$550,000 for costs associated with roadless area environmental impact statements. (See page 13.)
- (3) Increase of \$1,335,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.
- (4) Increase of \$55,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.
- (5) Decrease of \$1,216,000 in harvest administration.

Preparation and Administration

GOAL: To sell that volume of timber determined to be optimum in consideration of all National Forest resource inventories, uses, and values, and in view of economic conditions; and to manage the harvest of National Forest timber so as to protect and enhance the environment and insure proper payment for stumpage.

The demand for timber and the annual timber harvest from the National Forests continues to rise steadily over the longrun but is typically cyclic in the short-run, being quite sensitive to business and building cycles. A rapid change, upward or downward, in the demand for some product, such as lumber and plywood, will result in a quick and sharp fluctuation of price. Response of industrial production may significantly lag upward price fluctuations because of:

- (1) Limitations on mill capacity.
- (2) Logging equipment.
- (3) Labor force.
- (4) Immediately available raw material.

Short run increases in demand must be met by accelerating harvest of standing timber, or by an increase in price. In recent years attempts have been made to dampen or reverse rapid, sharp price increases by placing additional National Forest timber on the market. These efforts have also lagged behind the demand that has already brought about the price increases. Typically the additional timber is purchased by industry at a high price when the demand has already peaked, or nearly so, and product prices have started to fall.

Ideally, the supply of National Forest timber offered to industry should increase prior to an upward swing in demand. This would indicate a need to have a constant supply of timber prepared for sale. Thus the backlog of Federal timber under contract and available to industry would increase to the point where Federal-timber dependent industry could respond to actual or expected rapid increases in demand and price by expanding production to full capacity and yet have reasonable expectations of a continuing supply of timber for future production.

1/ For comparability, log export control (\$500,000) is shown under Sales administration and management rather than as appropriated under Reforestation and stand improvement.

Project (1a)

In fiscal year 1974, 981 million board feet of timber was prepared for sell, but was withheld from offering and placed in reserve because of the injunction issued by the United States District Court for the District of Columbia. By the close of fiscal year 1975 some 900 million board feet of this timber will either have been retained in reserve or have been replaced in reserve by an equivalent volume of fully prepared timber sales. In addition, during 1975 other sale volumes which are prepared and cannot be sold after advertisement will be added to the reserve volumes. If, due to the national economic recession, a decreased demand for National Forest timber develops during fiscal year 1976, timber prepared for sale but not in demand would be added to reserve volumes. Under these conditions, the objective is to have 2 billion board feet of timber available to offer for sale to industry quickly whenever a sudden, rapid increase in timber demand is anticipated.

To meet expected demands in fiscal year 1976 and subsequent years, both the timber sale preparation program and concurrent construction of the necessary transportation system should be expanded at a steady rate, approaching potential sustained yield capacity on a planned, financed, fully-staffed basis. This is reflected in the 1976 program.

The total program for fiscal year 1976, compared with 1974 and 1975, follows:

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>Change</u>
		(in thousands)		
Sale preparation	\$40,031	\$43,808	\$55,624	+\$11,816
Harvest administration	30,506	32,522	31,636	-886
Enforcement of log export and substitution ..	500	710	710	- -
Subtotal, preparation and harvest	71,037	77,040	87,970	+10,930
Timber inventory and stand management				
control	5,358	5,701	5,147	-554
Silviculture examination	2,672	3,834	5,007	+1,173
Timber salvage of tussock moth infested area	396	- -	- -	- -
Total	79,463	86,575	98,124	+11,549

The Forest Service timber sale offerings program in fiscal year 1975 and subsequent years is geared towards increasing and maintaining its capacity to prepare, sell, and administer increasing timber volumes, within the constraints of the potential sustained yield capacity of the commercial forest land. Normally, the process of preparing a block of timber for sell spans a 3-5 year period. The process is becoming more complex and costly in terms of both manpower requirements and funding. The "easy" timber has been harvested in the past. Today and in the future timber must come from the more difficult terrain where expensive, advance road construction is required to provide access to the timber. Substantial infusions of Federal capital investment in the transportation system are needed several years in advance of the time of timber harvest. Failure to provide these funds consistently and currently will result in sharp decreases in future National Forest timber sell offerings. Past shortages are beginning to critically affect timber sale offerings on some National Forests where it is doubtful that the current level of sale offerings can be continued.

The move into the more difficult terrain to obtain timber increases the costs of sale preparation. Sale layout becomes more complex as it is necessary to use skyline or cable systems, or balloon and helicopter systems for harvesting timber. Slopes are steep, some highly productive soils are quite sensitive to mechanical disturbance or compaction, prevention of erosion requires great care in the layout of harvesting patterns, streams and watersheds must be protected, design of harvesting patterns must accommodate and enhance wildlife habitat needs and esthetic considerations. All these, and more, require many skills and professions applied in liberal amounts, well in advance of offering the timber for sale.

Workload and cost information is shown in the following tabulation for fiscal years 1974, 1975, and 1976:

	<u>1974</u> ^{1/}	<u>1975</u>	<u>1976</u>
<u>Sale preparation</u>			
Million board feet (local scale)	11,937 ^{2/}	11,559	^{4/} 11,858
Cost per thousand board feet	\$3.35	\$3.79	\$4.69
Total cost (in thousands)	\$40,031	\$43,808	\$55,624
<u>Harvest administration</u>			
Expected harvest level in million board feet (local scale)	10,950 ^{3/}	10,600	11,000
Total cost (in thousands)	\$30,506	\$32,522	\$31,636

Demand and prices were at record-setting levels in late fiscal year 1974. For example, the average bid price for West Side Douglas-fir sold during the third quarter of fiscal year 1974 was \$204.12 per MBF, up 86 percent from the \$109.82 figure posted during the third quarter of fiscal year 1973.

For the immediate short term, however, the demand outlook for forest products is mixed, caused by high interest rates and short money supply. Housing starts for calendar year 1974 dropped below the 1972-1973 level, with a resultant drop in demand for lumber and plywood. In contrast, the long-term outlook is for shortages of both lumber and paper products, beginning, probably in late fiscal year 1976. In such an event, there will be considerable pressure to maintain and increase National Forest offerings.

While current demand has fallen off for lumber and plywood products and seems to be trending lower, a decided increase in demand for raw material for pulp and paper developed during fiscal year 1974. Worldwide, demand has exceeded output and has resulted in a considerable increase in export of pulp and paper products from the United States. For a number of years production capacity of pulp and paper products has remained fairly static in the United States. Recently, expanded production at existing mills, as well as proposed new plant construction, has been announced by the industry. As a result, a considerably increased volume of fiber material is being requested from the National Forests, wherever a supply is available within the harvesting range of existing or planned mills.

Salvage of mortality merits very high consideration for funding and management direction annually. Salvage sales generally cost considerably more to prepare and administer than other sales.

More environmental constraints are being demanded by the public on National Forest lands. As a result, support funding in other resource activities is increasing to develop and protect the interrelated uses with timber harvest. Timber sale layout and road location of a long-term sale in Alaska was a cooperative responsibility with the purchaser when sold in the 1950's, but now the Forest Service must assume responsibility for this work. Environmental constraints have been reflected in further intensification of timber management, improved administration and supervision, achievement of quality harvesting, increased public involvement, land use planning, and environmental impact statements.

- ^{1/} Excludes supplemental funds of \$396,000 received in fiscal year 1974 to prepare for sale timber from areas damaged by tussock moth in the Pacific Northwest.
- ^{2/} Preliminary data includes 375 million board feet of timber prepared and released for harvest on existing long-term sales in Alaska, 47 million board feet of fire killed timber prepared and added to existing sales, 321 million board feet offered for sale but received no bids, and 981 million board feet prepared for sell but withheld from offering because of the injunction issued in the United States District Court for the District of Columbia.
- ^{3/} Preliminary data.
- ^{4/} This includes one target for volumes which are chargeable against the allowable harvest and one target for nonchargeable volumes.

Returns to the Treasury from the harvest of National Forest timber are summarized in the following tabulation:

<u>Fiscal Year</u>	<u>Receipts (in millions)</u>
1969	\$306.8
1970	283.9
1971	217.0
1972	330.0
1973	446.7 ^{1/}
1974	459.9 ^{1/}
1975	460.0 ^{1/} (estimated)
1976	500.0 (estimated)

^{1/} Excludes \$7.9 million of timber receipts in fiscal years 1973 and 1974 which were not credited to the National Forests Fund until fiscal year 1975 due to action pending on land exchange offer executed by the Fibreboard Corporation.

National Forest Timber Inventory and Plans

GOAL: To provide timber resource information for overall land-use planning and to plan the orderly development of timber production on the National Forests. A specific objective is to develop the capability for annual updating of timber management plans. To increase the growth rate and product quality of timber growing on the National Forests to the levels consistent with maintenance of environmental quality, multiple resource use objectives, and total social and economic benefits and costs.

Within current levels of forest management on the National Forests, available supplies of timber are considerably below yields attained in fully stocked natural stands, and much less than yields attainable with intensive practices. Both technical opportunities for increasing yields and economic returns from investments in intensified management vary widely from stand to stand and place to place depending on a variety of factors. Differences in treatment opportunities stem in part from site and stand conditions. Stocking, species composition, tree diameter distribution, and regeneration requirements also vary widely in different stands and directly affect management opportunities. Additional factors of accessibility and operability of forest areas and nature of available markets also influence the economic feasibility of intensified management. In many cases the necessity of modifying timber management to enhance environmental protection and to maintain recreation, wildlife, and esthetic values increases management costs or reduces amounts of timber growth available for harvest.

The Forest Service report The Outlook for Timber in the United States projects that demands on National Forests for timber products by the year 2000 will far exceed supply at current levels of management and 1970 price levels. The same conclusion was reported in the Report of the President's Advisory Panel on Timber and the Environment and the report Timber: The Renewable Material, which was prepared for the National Commission on Materials Policy.

Application of intensified management is needed now to meet future supply needs. The foundation of all such management intensification efforts starts with adequate, timely inventories of the timber resource and expands to intensive, individual stand examination by qualified silviculturists and professionalists in supporting fields of wildlife biology, soils, geology, landscape management, economics, logging, and engineering.

Forestwide timber management plans are prepared from the forest inventories, and stand prescriptions are made following the detailed examination of each stand. A complex, detailed record of appropriate data statistics is maintained for each stand, compartment, and forest. Stand needs identified by the stand silvicultural examination are met by timber harvesting, reforestation, or timber stand improvement measures. The growth potential of each stand and the forest are identified and prescribed for thorough planned subsequent actions. Results are measured and recorded throughout the life of the stand through recurring inventories and stand examination. Currently, inventories are done on a 10-year recurring cycle.

Changes take place rapidly in growing stands of timber through application of harvesting and timber stand improvement measures, and the effects of insects, disease, and natural and man-caused calamities. As a minimum, each stand should be reexamined every ten years to measure the change and to prescribe for future needs, such as timber harvest, reforestation, or stand improvement.

Current program levels are adequate only for a 10-year inventory cycle and stand silvicultural examination of 3,505,000 acres annually, which is only 38 percent of the desired 9,190,000 acres annual program.

Examples of Recent Accomplishments

The record of timber harvested and sold during the past 5 years is compared with the allowable harvest in the following table:

<u>Fiscal Year</u>	<u>Annual Allowable Harvest</u> ^{1/}	<u>Actual Volume Harvested</u>	<u>Percent of Allowable Actually Harvested</u>	<u>Actual Volume Sold</u> ^{2/}	<u>Percent of Allowable Actually Sold</u>
(Volumes in billion board feet, local scale)					
1970	13.5	11.5	85	13.4	99
1971	13.7	10.3	75	10.6	77
1972	13.6	11.7	86	10.3	76
1973	13.6	12.4 ^{3/}	91	10.2 ^{3/}	75
1974	13.6	11.0 ^{3/}	81	10.2 ^{3/}	75

^{1/} As of the January 1 midpoint of the fiscal year. Includes sawtimber and small (convertible) products.

^{2/} There are additional volumes prepared and released for harvest on long-term sales in Alaska. Also, there were additional volumes offered for sale for which there were no bids.

^{3/} Preliminary data.

TIMBER RESOURCE MANAGEMENT - Reforestation and Stand Improvement

		Permanent full-time positions
1974	1/ \$33,331,000	712
1975	51,262,000	654
1976	46,686,000	694
Change	<u>-4,576,000</u>	<u>+40</u>

A net decrease of \$4,576,000 is proposed, with an increase of 40 permanent full-time positions, as follows:

- (1) Increase of \$253,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.
- (2) Increase of \$171,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.
- (3) Decrease of \$5,000,000 in funds appropriated. However, the program level proposed in 1976 is \$5,000,000 greater than 1975 since \$10,000,000 of the funds appropriated in 1975 are proposed to be rescinded.

The program for fiscal year 1976, compared with 1974 and 1975, follows:

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>Change</u>
		(in thousands)		
Reforestation	\$19,651	\$23,548	\$28,712	+\$5,164
Timber stand improvement	11,635	12,911	14,688	+1,777
Genetic tree improvement	1,680	2,348	2,571	+223
Nursery operation and development	365	2,455	715	-1,740
Proposed rescission (R75-10)	- -	10,000	- -	-10,000
Total	<u>33,331</u>	<u>51,262</u>	<u>46,686</u>	<u>-4,576</u>

GOAL: To increase the growth rate and product quality of timber growing on the National Forests to the levels consistent with maintenance of environmental quality, multiple resource use objectives, and total social and economic benefits and costs.

The output of all products and services of the National Forests, including timber products, can be increased materially in the next decade at costs commensurate with benefits. Greater investments of capital, labor, and materials will be needed along with improved, intensified quality management. The remainder of the 1970's is a crucial time for action to insure future timber supply. The harvesting of presently standing timber, both old growth and young growth, will continue to be important for a few decades; but, increasingly, harvest will consist of wood grown after 1975. For the long run, 2020 and beyond, it is timber growth which is all important; and available timber volume in those decades depends upon measures to increase growth taken in the 1970's and 1980's.

Increased timber production on areas suitable for treatment can be achieved by a variety of measures, including accelerated regeneration, stand improvement, commercial thinning, fertilization, genetic tree improvement, improved harvesting practices and utilization, and intensified protection.

After harvest, fire, windthrow, disease or insect kill, the salvageable timber is removed and the area regenerated by natural or artificial means. Where available and appropriate, genetically improved seedlings are planted. When such seedlings are used, both economics and silviculture normally dictate thinnings and intermediate selective cutting and final harvest by clearcutting. Precommercial and commercial thinnings, application of fertilizers, and control of insect pest and diseases are

1/ For comparability, log export control (\$500,000) is shown under Sales administration and management, rather than as appropriated under Reforestation and stand improvement.

measures for increasing the growth and development of trees. Following forestwide organization of stands by age classes, prompt harvesting at maturity, together with immediate regeneration with a new stand before weeds and shrubs take over the site, is always desirable and often essential for success.

A comparison of proposed fiscal year 1976 outputs with fiscal years 1974 and 1975 follows:

	1974	1975 (estimate)	1976 (estimate)
Reforestation (acres)	131,691	171,709	191,255
Timber stand improvement (acres)	162,141	183,055	208,559
Genetic tree improvement (acres of seed orchards)	1,631	1,631	1,631
Nursery operation and development (no. of nurseries)	12	11	11

Through the use of Multiploy, a new technique for analyzing investments in growing timber, the Forest Service is selecting sites that have the highest potential for growth and other returns and show the most cost effectiveness.

The only source of lumber and plywood during the 1970's and 1980's will be from trees of merchantable size now standing. Growth of additional wood on these trees, growth of wood on smaller trees now standing, and growth of trees to be seeded or planted during the decade, may all add to the annual timber growth rate. This could increase the current programmed allowable harvest rate on forests with a surplus of old-growth timber, even though none of the above young and new trees would be cut during that period.

The proposed reforestation and stand improvement program will contribute to the long-range goal of improving the total net growth and sustainable harvest volume on the National Forests. Growth resulting from this program will not only help to offset the decrease in available yield brought about by changes in land use but will also help to raise both the short-term and long-term sustainable harvests from National Forests. The long-range increase in yield (by the year 2000) from the fiscal year 1976 program will exceed 105 million board feet annually.

The Supplemental National Forest Reforestation Fund Act of September 18, 1972 (86 Stat. 678) established the interest of Congress in reforestation of National Forest lands and requires an annual report of need; 3.3 million acres were so reported in 1974. Planting and seeding the existing 3.3 million acres needing reforestation, plus a substantial increase in intensive silvicultural treatments such as thinning, fertilization, and genetics, will enable the National Forests to sustain timber production on a high level. There are 9 million acres of land in a backlog needing stand improvement. In addition, the timber harvesting program produces a recurring stand improvement need with a magnitude of 200 to 250 thousand acres yearly.

Reforestation of 3.3 million acres at a rate of 200,000 acres per year would be completed in about 17 years. This does not allow for annual losses to fire, insects, and blowdown, which adds to the acres needing treatment. It is estimated that a continuing series of programs of intensified management which includes stand improvement and fertilization would provide an additional 1.6 billion board feet by 1980 and as much as 13 billion board feet by 2020. The 13 billion board feet is more than the amount currently harvested in a year from the National Forests.

There are several constraints on the reforestation program:

- (1) Shortage of suitable seed or nursery stock. Adequate funding of programs to assure seed and nursery stock is vital. At present we are developing nursery capacity and methods of growing seedlings in a controlled environment similar to a greenhouse. Seedlings can be produced in this way in as little as 6 months.
- (2) Restrictions on use of pesticides such as 2,4,5-T and rodenticides. This restriction complicates site preparation, protection and release of growing stock.

Examples of recent accomplishments

Reforestation. With appropriated funds, an area of 112,274 acres of National Forest land was reforested in 1974--98,227 by planting and 14,047 by seeding. In addition, 19,417 acres of plantations were established by preparing the ground to promote regeneration from natural seedfall. Other reforestation accomplishments in 1974 include:

- (1) Forest Service seed extractories processed 28,382 pounds of seed.
- (2) Production of 106.6 million trees in 12 Forest Service nurseries.
- (3) Establishment of 15 acres of new seed production areas and 119 acres of new seed orchards. About 24.7 thousand acres were planted with seedlings grown from the better quality seed produced in seed orchards or seed production areas.

Reforestation with funds collected under the Knutson-Vandenberg Act. The following reforestation was in addition to reforestation done with appropriated funds:

	<u>Acres</u>
Tree planting	142,655
Seeding	15,266
Reforestation by natural seed-fall on prepared sites	62,441
	<u>220,362</u>

An additional 9,004 acres of National Forest land were reforested by other Federal and cooperative programs.

The total area reforested where some treatment such as planting, seeding, or site preparation was applied in 1974 was 361,057 acres.

Timber stand improvement. An area of 162,141 acres was treated by the following cultural measures with appropriated funds in 1974:

	<u>Acres</u>
Thinning	112,071
Release	48,935
Pruning	997
Fertilizing	138
	<u>162,141</u>

Timber stand improvement was also done for the same purpose with Knutson-Vandenberg funds on the following acreage in 1974:

	<u>Acres</u>
Thinning	137,236
Release	43,135
Pruning	470
Fertilizing	70
	<u>180,911</u>

In addition, 4,694 acres of timber stand improvement was accomplished with other Federal or cooperative funds.

THESE PICTURES
REPRESENT AN EXAMPLE OF REFORESTATION ACCOMPLISHMENT



The Mt. Hebo fire occurred on the Siuslaw National Forest in Oregon in 1909. Douglas—fir and spruce were the principal tree species planted on 8,000 acres following the fire.



The same area as it appeared in 1973.

RECREATION USE

		Permanent full-time positions
1974	\$44,603,000	1,451
1975	48,122,000	1,450
1976	51,130,000	1,484
Change	<u>+3,008,000</u>	<u>+34</u>

An increase of \$3,008,000, with an increase of 34 permanent full-time positions is proposed as follows:

- (1) For maintenance of sanitary landfills, \$760,000.
- (2) For operation of new pollution abatement facilities, \$782,000.
- (3) For costs of roadless area environmental impact statements, \$550,000.
(See page 13.)
- (4) For landscape and design effort in support of timber sale activities, \$343,000.
- (5) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$542,000.
- (6) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$31,000.

The following tabulation shows the total planned financing for 1976 as compared with funds available in 1974 and 1975 (in thousands):

	<u>FY 1974</u>	<u>FY 1975</u>	<u>FY 1976</u>	<u>Change</u>
Administration of concessions and recreation use permits	\$1,630	\$1,730	\$1,750	+\$20
Operation and maintenance	34,860	37,892	40,228	+2,336
Planning and inventories	1,318	1,400	1,972	+572
Wilderness administration	3,015	3,200	3,235	+35
Visitor Information Service	3,780	3,900	3,945	+45
Total	44,603	48,122	51,130	+3,008

GOAL: Based on the needs and desires of the Nation's people, provide for an estimated 209.5 million visitor-days of quality outdoor recreation on the National Forest System lands.

Through programs of planning, operation, maintenance, enhancement, managed use, and visitor contact, coordinate recreation use with the multi-demands on the National Forest System, keeping it consistent with the land's capacity, user-safety, and basic resource protection.

Through properly planned and executed landscape management programs, insure that all National Forest System uses are designed to recognize and retain or enhance, when possible, the visual resource.

The Forest Service mission is to manage the recreation resources on National Forest lands to best serve the steadily increasing numbers of Americans seeking inspiration, enjoyment, and relaxation in the outdoors. Outdoor recreation opportunities and attractions include improvements from family picnic areas to internationally known ski areas and natural features from trout streams to vast wilderness tracts.

National Forest recreation is characterized by the trails, streams, woodlands, and natural environment of the forest and wild lands. Additionally, there is a diversity of facilities for camping, picnicking, boating, swimming, hiking, winter sports, interpretation, and service. The Forest Service maintains:

Project (2)

Developed camp and picnic family units	107,000
Swimming areas	322
Boating sites	857
Interpretive sites	458

The Service also administers permits to private individuals and groups covering:

Recreation residences	19,000
Winter sports areas	216
Organization camps	558
Lodges and resorts	370

Other recreation attractions of the National Forest System include:

National Recreation Areas	6
National Scenic Trails	2
Wild and Scenic Rivers	7
Wildernesses and Primitive Areas (million acres)	15
Roads and trails (miles)	321,000
Fishing streams (miles)	83,000
Lakes and reservoirs (million acres)	2.7

On-going Programs

Twenty percent, or more than 40 million visitor-days, of National Forest recreation use will take place at the more than 6,400 Forest Service developed campgrounds. An additional 5 percent, or 10 million visitor-days of use, will take place at other Forest Service developed sites. The private sector through concession operations will provide more than 25 million additional public recreation visitor-days of use, or about 15 percent of all recreation use on the National Forests.

Many actions have and will be taken within this program level to make better use of available funds. For example, some camp and picnic areas with high operating costs and low use are identified and closed when reasonable alternative sites are available.

Additionally, season of use has been adjusted on thousands of sites to assure availability during higher demand periods.

Maintenance will be provided to assure that all essential safety, sanitation and minimum user control at open sites can be accomplished.

In response to the Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) and Executive Orders 11507 and 11752, solid waste and sewage treatment facilities costing in excess of \$50 million have been installed. The proposed increase of \$1,542,000 will provide additional funds for the annual operation and maintenance costs of these recently completed facilities.

The remaining proposed increases will strengthen recreation resource input into environmental statements covering major Federal actions (\$550,000), and provide landscape management and design services (\$343,000) for a variety of high priority resource development activities, e.g., timber harvests and road building.

Landscape management efforts will allow development of procedural and technical instructions and continued training of all National Forest land managers. This will help to insure that commodity uses are planned and administered in a way consistent with the environmental and ecological integrity of the landscapes involved. In addition to timber harvest, the program will allow application of visual management to the most critical and controversial visual impacts of range vegetation, utility construction, and fire management activities. This program is supported by a cadre of specially trained landscape architects who participate in interdisciplinary multiple use planning and project design.

Sixty percent, or over 120 million visitor-days, of recreation use on National Forests occurs in dispersed areas--that is, away from camp and picnic grounds, ski areas, or similar developments. Management attention will be given to:

	<u>Million Visitor-Days</u>
Dispersed camping	15.0
Hiking and nature study	7.5
Boating	4.0
Off-road vehicles	6.5
Hunting and fishing	30.0



Figure 2-1

Minimum sanitation and policing are needed to maintain acceptable resource protection while continuing opportunities for unstructured recreation activities (Snoqualmie National Forest).



Figure 2-2

Increasingly, Americans are finding and enjoying spiritual and physical refreshment in wilderness areas--over 7 million visitor-days are expected in the 89 wildernesses and primitive areas (15 million acres). This use pressure mandates current management planning, and 22 plans will be finalized, totaling 51 valid plans of the 89 needed. (Boundary Waters Canoe Area, Superior National Forest)

Similarly, use conditions at National Recreation Areas (NRAs) are changing, and management plans for three of the six National Forest NRAs will be finished, as will the one remaining plan for the eight wild and scenic rivers. These plans are vital to facilitate outdoor recreation activities which meet human needs but do not require large expenditures of money or fossil fuel by users, thereby complementing several national priorities.

Visitor Information Service will stress efforts to:

- (1) Help the National Forest visitor understand and appreciate the forest environment so that he may come to the self-realization of his dependency upon the wise use of natural resources and to assure a quality of life experience for present and future Americans.
- (2) Enrich the experience of visitors to the National Forests and Forest Service facilities by providing forest orientation services and by interpreting the local human history, natural history, and natural resources.

Fiscal year 1976 funds will continue visitor information services without sacrificing quality. Special efforts will be made to extend public service by utilizing unstaffed services, such as selfguiding interpretive trails and auto tours, interpretive signs, wayside exhibits, and automatic message repeaters, at the 458 interpretive sites in the National Forest System and at other Forest Service facilities.

New Program Dimensions

Total recreation use of the National Forests is increasing at a rate of 5 to 6 million visitor-days per year. Maintaining quality resource opportunities requires innovative approaches and public cooperation.



Figure 2-3

For example, the PYT Campaign (Pack-your-trash) will be expanded to include more of the smaller sites, those that are lightly used, and those in remote areas where collection costs are high. Further, an intensive program of preventative law enforcement, including training of Forest Service personnel and cooperation with local authorities, will be accomplished in the most critical areas.

Public Law 92-500 and E.O. 11752 reflect increased public concern for high water quality standards. Positive response to these new National priorities will require reassessment of investment and manpower allocations. Violating facilities or sites which cannot be economically corrected will be closed.

A National annual increase in skiing of about 15 percent requires analysis and review of new National Forest areas to provide, with the assistance of the private sector, additional skiing opportunities.

Development of the National Forests for commodity purposes has generally moved from the lower elevation and more accessible areas to those presenting more difficult and challenging resource problems. Many of these areas represent physical and biological limitations closer to the threshold of technological skill in designing access and commodity activities, e.g., timber harvest. The best interdisciplinary skills are being focused on these areas to assure no opportunity for compatible recreation use is foregone nor any visual resource value unnecessarily compromised. Although this effort detracts from other desirable but deferrable projects, it recognizes the irretrievable nature of consequences in these complex resource situations.

Planning for management of recreational use by off-road vehicles (required by Executive Order 11644) will be finished on 559 planning units and, along with 124 previously completed plans, will guide this activity on the entire National Forest System. Planned implementation on all 155 National Forests by December 31, 1976, will require enforcement of regulations covered by this funding.



Figure 2-4

Plans for management of off-road vehicles will be completed this fiscal year, requiring enforcement of regulations (Wenatchee National Forest).



Figure 2-5. By December 31, 1976, plans will be implemented for OVR management on all 155 National Forests (Manistee National Forest).

This budget permits finishing intensive wilderness reviews of 16 additional New Wilderness Study Areas (NSAs), bringing accomplishment to 52 NSAs completed of the proposed 274 selected to be done. Reviews of an additional 19 NSAs are to be initiated--117 will have been started, or 42.7 percent of the total needed.

Funding is included in this budget for the protection of archeological and historical resources (Executive Order 11593).



Figure 2-6

In addition to inventorying the National Forests for cultural resources, archeological and historical resources must be protected (San Juan National Forest).

WILDLIFE AND FISH HABITAT MANAGEMENT

		Permanent full-time positions
1974	\$8,694,000	337
1975	9,459,000	349
1976	11,360,000	378
Change ..	<u>+1,901,000</u>	<u>+29</u>

An increase of \$1,901,000, with an increase of 29 permanent full-time positions, is proposed as follows:

- (1) For coordination of wildlife biological needs and requirements with timber sale activities, \$441,000.
- (2) To protect and enhance threatened and endangered species, \$936,000.
- (3) For costs of roadless area environmental impact statements, \$330,000. (See page 13.)
- (4) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$164,000.
- (5) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$30,000.

The planned level of financing for fiscal year 1976, as compared with 1974 and 1975, follows (in thousands):

	1974	1975	1976	Change
Recurrent work	\$4,617	\$5,269	\$6,145	+\$876
Habitat restoration and development	3,174	3,257	3,315	+58
Endangered and other threatened species	903	933	1,900	+967
Total	8,694	9,459	11,360	+1,901

GOAL: Develop and maintain, in cooperation with the States and in harmony with the natural environment and with other uses of the land, a pattern of wildlife and fish habitats on National Forest and National Grassland areas that will best meet the needs of people now and in the future.

Give special attention to the environmental needs of threatened and endangered wildlife and fish species, and to those species which are dependent upon National Forest and National Grassland habitat for the greater part of their range.

Scope of Program

The forest and rangelands of the National Forests and Grasslands provide habitat for big game, small game, waterfowl, fish, and space for nonconsumptive wildlife enjoyment. Rare and endangered species are provided protection and sanctuary on National Forest lands. The projected socio-economic characteristics indicate a rising demand for National Forest centered wildlife-oriented recreation.

The quality of the habitat and the consequent extent of wildlife populations is influenced by forest management practices related to the harvest of timber, grazing of livestock, control of plants and vegetation, and the introduction of species.

The quality of hunting and fishing opportunities offered on National Forest lands is dependent on species of game available, game population density, hunter or fisherman density, and esthetics of the habitat. Levels of use are not established by the Forest Service, but by the regulations promulgated by the States.

Inherently, National Forest areas are strongholds of environmental features that provide the proper living and breeding conditions for a variety of animals and fish.

Wildlife and fish habitat on National Forest land is managed in cooperation with the State Conservation Departments, as well as with the Bureau of Sport Fisheries and Wildlife, Bureau of Land Management, and other Federal agencies. State Conservation Departments are responsible for protecting wildlife and regulating the harvest of fish and game populations. The National Forest System has the primary responsibility for fish and wildlife habitat on the land it manages.

There is a need to continue the intensified recurrent work segment of this program which includes the coordination of wildlife and fish habitat needs into timber management, road construction, and other development activities. This is especially cogent when considering the Forest Service program of accelerated timber management which must be instituted to help meet the national need for wood products. To fully develop the opportunities of wildlife and fish habitat management through other resource programs, it is essential that the wildlife resource needs for both game and nongame species be coordinated into the planning, execution, and followup phases of Forest Service developmental programs.

Current inventories have identified numerous opportunities for improving fish and wildlife habitat conditions on National Forest lands. There is a need for surveys and plans on over 45 million acres of big game range and 43 million acres of small game and nongame species habitat. Habitat improvement would benefit 70,000 acres of streams and 88,000 acres of lakes. Wetland improvements could provide 106,000 acres of shallow water impoundments and food plantings and over 80,000 pothole and nesting facilities for waterfowl.

Upland game management opportunities include 5.7 million acres of food and cover improvement, and nearly 15,000 watering facilities. Protecting key wildlife areas requires an estimated 6,500 miles of fencing.

Management and protection of the habitat for 58 endangered and other threatened wildlife and fish species found on or adjacent to National Forest System lands is of highest priority. The Forest Service land management program seeks increased protection, management, and survival of these species through habitat enhancement and maintenance. Quality habitat conditions are needed to insure survival and continued increases in the population status of these species.

Fiscal year 1976 program provides for wildlife and fish habitat improvement as follows:

Land treated in which wildlife habitat coordination was planned and used (thousand acres)	5,127.0
Direct habitat development	173.6

Use

"Appreciative" use of wildlife through bird and animal watching, photography, nature walks, and generally observing all forms of wildlife and fish, including endangered and threatened species, is a rapidly growing visitor activity on National Forests. In 1974, about 17.5 million visitor-days of appreciative wildlife use occurred on Forest Service land. 1/

National Forest land and water accommodated 14,232,000 hunter and 15,761,000 fishing visitor-days in 1974. 2/ Although comprising less than one-twelfth of the Nation's total area, this land accounts for nearly one-fourth of the annual big game harvest. The 83,000 miles of forest streams, 1.8 million acres of natural lakes and 880,000 acres of reservoirs provide excellent habitat for many species of fish. The annual value of commercial salmon catch for fish spawned in waters within National Forests, but caught in off-shore saltwater, is estimated at \$31 million

1/ The visitor-day is a unit of measure amounting to 12 hours.

2/ Days use-- calculated from visitor-days use reports, using the following conventions:

- (a) Each hunter averages 5 hours of hunting time per day.
- (b) Each freshwater fisherman averages 4 hours of fishing per day.
- (c) Each bird watcher/photographer is estimated to spend 4 hours per day.

Estimated user expenditures for wildlife-oriented activities on the National Forests for fiscal year 1974 are as follows:

	<u>Days Use</u> ^{2/}	<u>User Expenditures</u> ^{1/} (in millions)
Appreciative (bird watching, photography) ..	17.5	\$87
Hunting	34.0	410
Fishing	38.0	317

Legislative Impacts

Public Law 93-452 of October 18, 1974, (88 Stat. 1369) an Act to extend and expand the authority for carrying out conservation and rehabilitation programs on certain public lands, will help the Forest Service and States strengthen and implement wildlife programs.

Title II directs the Secretaries of Agriculture and the Interior in cooperation with State agencies to plan, develop, maintain, and coordinate programs for the conservation and rehabilitation of wildlife, fish, and game on Federal lands under their respective jurisdictions.

The objectives of Title II with respect to the National Forests are:

- (1) It creates a statutory requirement that the Forest Service develop a comprehensive plan, in consultation with each State wildlife agency, for wildlife conservation and rehabilitation programs to be conducted on the National Forests within each State. This will involve reviewing existing land use and wildlife management plans of the individual National Forests in a State and blending the respective wildlife plans into one comprehensive plan. Such plans could be of benefit to the Forest Service, and presumably would be of benefit to the State agencies. The plans will be useful in establishing a basis for cooperative agreements and planned development of wildlife habitat resources.
- (2) It would provide statutory reinforcement of the Forest Service-State wildlife agency cooperative agreement arrangements.
- (3) I provides for a program of habitat improvement that would enhance wildlife resources on selected areas, consistent with overall land use and management plans for the area.

Numerous opportunities exist for cooperative proposals with the States for habitat restoration and development on National Forest System lands. Direct wildlife and fish habitat improvement programs with the States are in accord with the existing long-term cooperative agreements made with the various State conservation agencies. Under these existing agreements, the States have contributed a substantial share of the cost of habitat and fishing water improvements. In 1973 (most current available data) the States financed 35 percent of the habitat work on the National Forests. This amounts to an expenditure of about \$1.1 million.

National Environmental Policy Act of 1969 (83 Stat. 852). To accomplish the principles and requirements of Section 102(2)(c) of this Act, there is a need to increase the scope and quality of environmental analysis. The Act requires environmental statements on proposed major Federal actions significantly affecting the environment.

^{1/} User expenditures--based on average expenditures for sport fishing and hunting as determined in the National Survey of Fishing and Hunting (1970).

^{2/} See footnote on previous page.

The NEPA process requires agencies to explore a wider range of alternatives, to examine cumulative and secondary effects, and formalize reviews with other agencies and the public. Increases in fiscal year 1976 will be used to intensify the environmental analysis of proposed resource activities to reduce adverse impacts or enhance environmental quality of fish and wildlife habitat.

The Endangered Species Act of 1973 (87 Stat. 884, December 28, 1973) reaffirmed and strengthened the Nation's commitment to the conservation of endangered and threatened species. The Act also reaffirms and strengthens Forest Service objectives and policy to give special emphasis to the protection of rare and endangered species of plants and animals.

This law requires the Forest Service to utilize its authorities in furtherance of the purposes of this Act by carrying out programs, directly and through cooperators, for the conservation of endangered and threatened species. The Forest Service must continue to "insure that actions authorized, funded, or carried out do not jeopardize" endangered or threatened species or their habitats.

The Secretary of the Interior, in consultation with the States, is responsible for identifying critical habitats. At the National level, Forest Service personnel have met with personnel in the Office of Endangered Species, Bureau of Sport Fisheries and Wildlife, Department of the Interior, and offered assistance in locating and designating critical habitats on National Forest System lands. Forest Service regions, areas, and stations will also work closely with Sport Fisheries and Wildlife and the States in locating and designating "critical" habitats on all lands involving Forest Service programs. There are actually 109 species of animals officially listed as endangered.

Work accomplishments during 1974

A summary of total wildlife and fish habitat acres improved follows:

Food and cover development	478,629
Fish stream improvement	2,939
Fish lake improvement	11,262
Wetland improvement	4,527

Also, 3,369,000 acres of wildlife habitat were improved through coordination with other land resource uses and development.

Examples of Recent Accomplishments

The Alaska Department of Highways, in cooperation with the Forest Service and Alaska Department of Fish and Game, constructed a 3,200-foot dike near Hyder to eliminate flooding of Fish Creek by the Salmon River. Fish Creek produces a unique race of chum salmon that sometimes attain weights of forty pounds and average about twenty. Such protection has helped divert a serious depletion, if not extinction, of this unusual race of chum salmon.

The Eastern Region is approaching its long-range fish and wildlife development programs on a State-by-State basis, working closely with the various State conservation agencies. A program for development of fish and wildlife habitat on National Forests in Missouri was initiated in fiscal year 1974. This joint State-Forest Service program will be the first comprehensive fish and wildlife program in the Forest Service. It serves as a model for similar State-Forest Service programs now being developed in Wisconsin, Michigan, Indiana, and Minnesota. A detailed report on the program is being prepared for distribution to the public.

In cooperation with Georgia State University, in 1974 an economic survey of Southeastern wildlife and wildlife-oriented recreation was completed. Based on survey data, nearly 9 million Southeastern households spent \$4.1 billion for wildlife oriented recreation during the study year. A comparison of expenditures--actual outlays for one year by the population (with capital items amortized for one year)--with the monetary benefits received and required to give up, reveals that for every dollar of cash outlay, a total of \$5.90 benefits is received, and for every dollar placed on giving up activity, a total value of \$7.68 is received.

RANGELAND MANAGEMENT

		Permanent full-time positions
1974	\$15,813,000	597
1975	17,870,000	602
1976	18,432,000	608
Change	<u>+562,000</u>	<u>+6</u>

An increase of \$562,000, with an increase of 6 permanent full-time positions, is proposed as follows:

- (1) Costs of roadless area environmental impact statements, \$330,000. (See page 13.)
- (2) For coordination of rangeland management needs with timber sale activities, \$74,000.
- (3) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$158,000.

GOAL: To achieve a level of livestock forage production and utilization from National Forest System lands commensurate with demand and their economic and physical ability to produce relative to other sources of livestock feed.

Scope of Program. Rangeland management has three principal long-term objectives:

- (1) Achieve sustained annual production and utilization of 15.8 million animal unit months of livestock forage by the year 2000 (lowest estimated level of demand).
- (2) Improve 7.3 million acres of deteriorated National Forest System range to a satisfactory condition through cost-effective development and improved management by 1990.
- (3) Reduce or eliminate livestock grazing from 10.3 million acres of deteriorated range which does not justify investment in development and improved management.

Rangeland management objectives are met by applying systems of range management to local range areas in relation to their productivity for grazing and costs. System of management is determined through inventory and analysis of the range resource capability for each of 12,000 range allotments. Management prescriptions include:

- (1) Installation of livestock management facilities such as fences and water developments.
- (2) Intensive supervision of livestock use.
- (3) Cultural treatment (plant control and reseeding) of severely depleted areas.

Plans for 1976 include an emphasis on bringing deteriorated ranges into satisfactory condition. This will be accomplished through installing improved management systems and the necessary range development practices where greatest benefits are expected. Efforts will continue toward locating range areas in unsatisfactory condition with the poorest chance for recovery under continued livestock grazing. Special emphasis will be directed at completing and maintaining range allotment plans.

Projections indicate the need for almost two to three times as much grazing from all of the Nation's rangeland in the year 2000 as they are now producing (Figure 4-1) and they have the capability to be developed to these needed production levels. National Forest System ranges are an integral part of the Nation's range livestock production system.

The Forest Service can achieve a production of 15.8 million animal unit months of grazing annually by year 2000 through known methods that meet the test of cost-effectiveness and low energy requirements. This production level represents the economic and physical ability of National Forest System rangelands to help meet a

conservative estimate of national demand (Figure 4-1, low estimate) relative to all other sources of range forage. This increased level of grazing can be produced on 15 million less acres than are now being grazed (Figure 4-2). Greater care in matching range development practices to land capability for grazing accounts for the increased production on less land.

National Forest System range can be developed to effectively produce 21 million animal unit months annually, their estimated competitive share of total National need for range grazing at the highest estimated demand level by the year 2000.

Development of National Forest System ranges to produce their share of national need for grazing will benefit local ranchers and their communities. More dollars from sale of livestock produced using the National Forest System will flow through local economies while adding to rancher income. Environmental quality will be improved. Other benefits will result.

Increased availability of range grazing on the National Forest System could contribute substantially toward saving feed grains for sale in world or other markets while contributing significantly to conservation of fossil fuel energy. If all of these animal unit months of grazing were substituted for feed grain, about 60 million bushels, valued currently at approximately \$200 million, would be saved annually. In addition, saving of fossil fuels would amount to about 15 million gallons of gasoline.

Following are recent and projected accomplishments toward rangeland management objectives:

	<u>1974</u>	<u>1975</u>	<u>1976</u>
Allotment plans maintained (No.)	6,369	6,403	7,286
Allotment plans initiated (No.)	200	883	1,019
Grazing reduction on deteriorated rangeland (to date)			
(thousand acres)	3,313	3,681	4,196
Deteriorated range under improved management (to date)			
(thousand acres)	2,334	2,594	2,956
Range revegetation (thousand acres)	130	112	75
Grazing use, paid permits (thousand animal unit			
months)	7,300	7,470	7,640

MILLION ANIMAL UNIT MONTHS

ESTIMATED LIMITS OF NATIONAL DEMAND FOR RANGE GRAZING

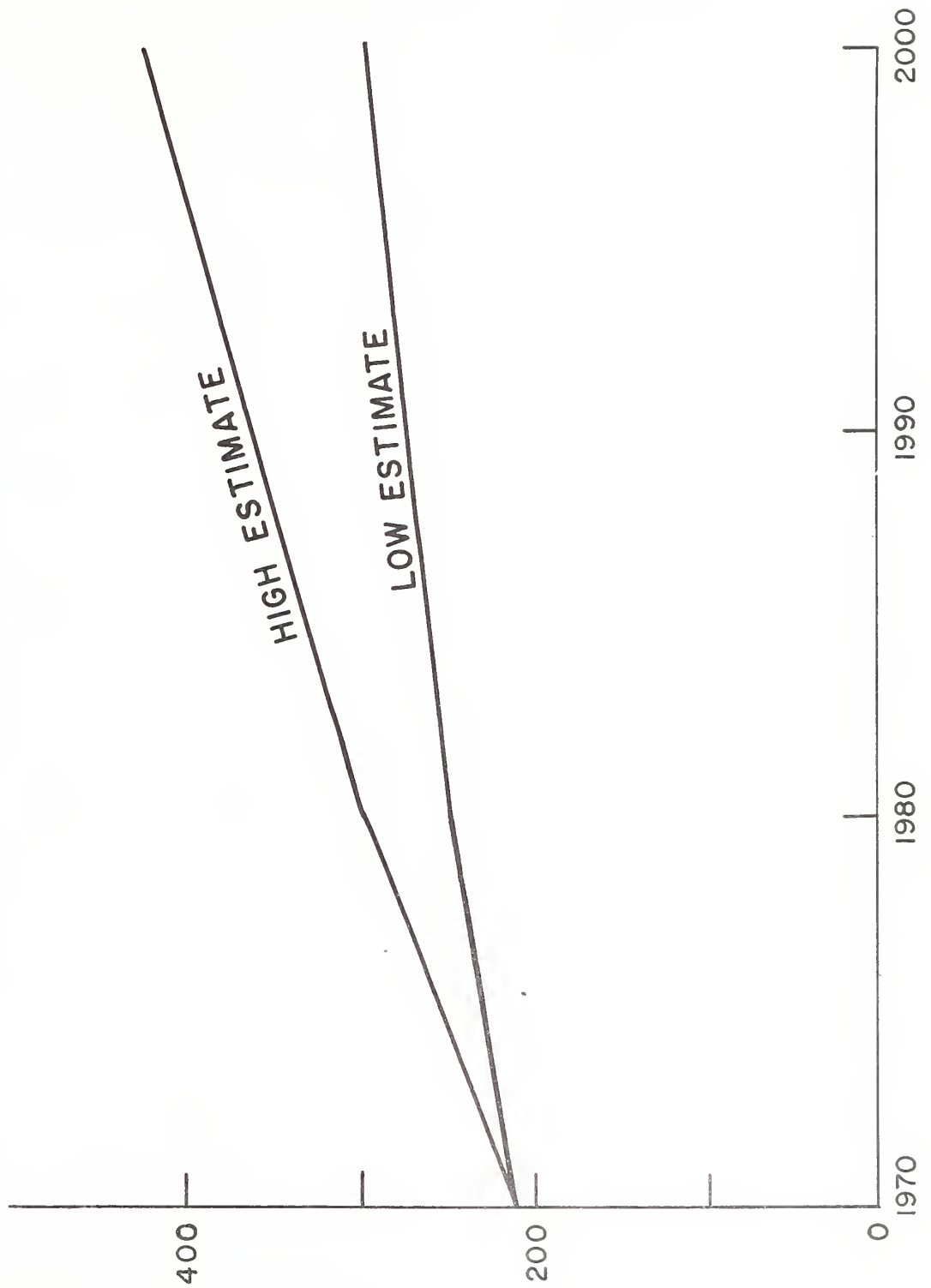


Figure 4-1

NFS LAND GRAZED & PRODUCTION (ANIMAL UNIT MONTHS - AUM'S)

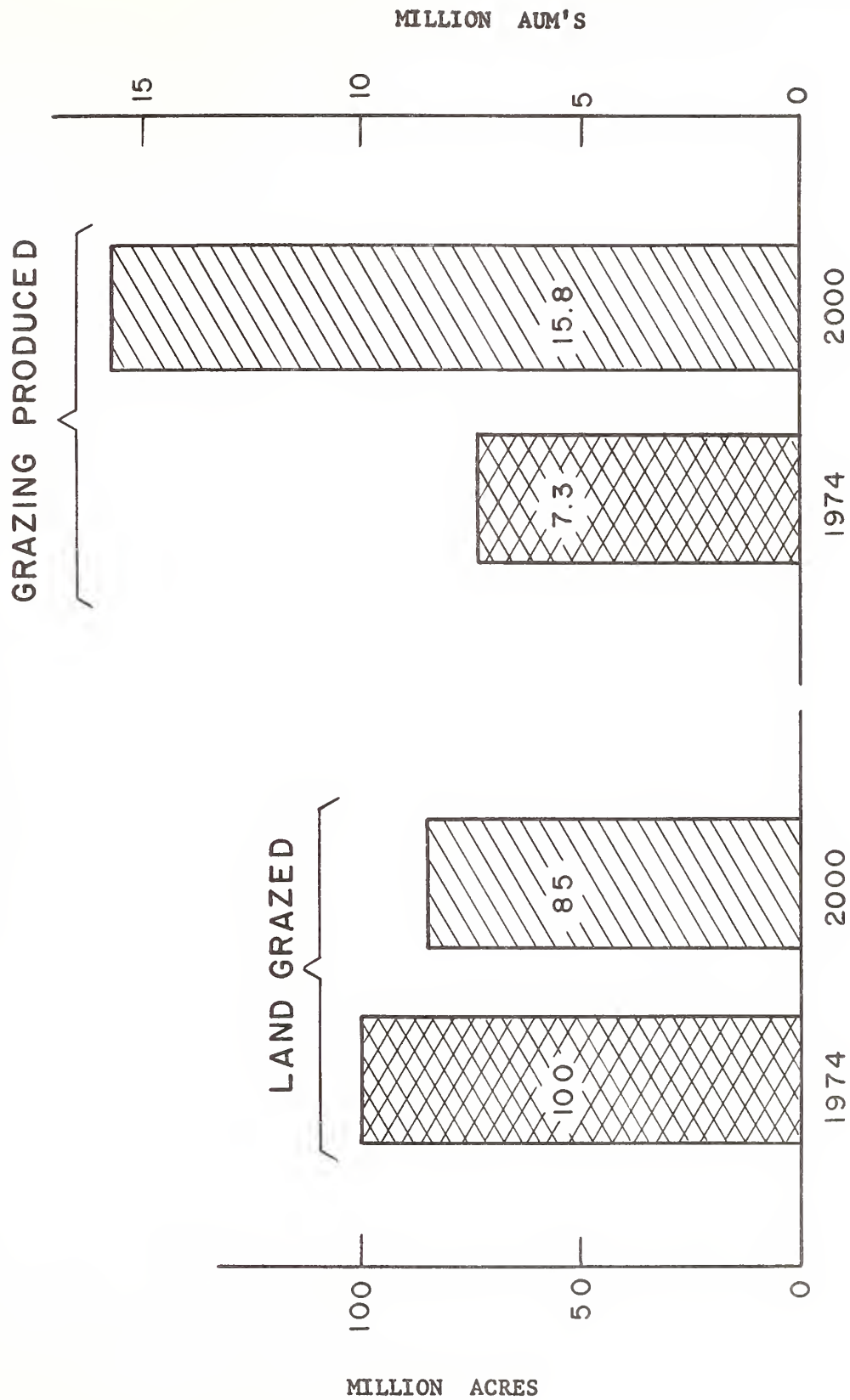


Figure 4-2

SOIL AND WATER MANAGEMENT

		Permanent full-time positions
1974	<u>1/</u> \$15,337,000	582
1975	16,506,000	539
1976	17,119,000	545
Change	<u>+613,000</u>	<u>+6</u>

An increase of \$613,000, with an increase of 6 permanent full-time positions, is proposed as follows:

- (1) For costs of roadless area environmental impact statements, \$220,000. (See page 13.)
- (2) For protection of critical soils and unstable slopes and enhancement of water production in support of timber sale activities, \$178,000.
- (3) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$176,000.
- (4) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$39,000.

GOAL: To maintain and enhance the environmental quality of National Forests for optimum public use and services through the application of scientific geology, hydrology, and soils knowledge to resource protection and development programs.

Program for fiscal year 1976, compared with 1974 and 1975, follows:

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>Change</u>
		(in thousands)		
Soil and water science for management support	\$8,333	\$9,800	\$11,455	+\$1,655
Watershed restoration and improvement	2,149	2,479	2,033	-446
Wild and scenic rivers studies	733	758	500	-258
Environmental analysis and construction liaison	2,541	2,645	1,960	-685
Planning liaison and protection related to projects of water resource development agencies	<u>1,581</u>	<u>824</u>	<u>1,171</u>	<u>+347</u>
Total	<u>15,337</u>	<u>16,506</u>	<u>17,119</u>	<u>+613</u>

Scope of Program

The objectives of soil and water management are accomplished primarily by providing Forest Service land managers engaged in the various land management activities the scientific advice and technical direction to help avoid land management problems. These services include:

- (1) Surveillance and monitoring activities to fulfill mandatory requirements for maintaining the quality of natural waters.
- (2) Providing knowledge of soil and water conditions and trends on which to base management decisions.
- (3) Conducting inventories and surveys to acquire basic data on soil and water resources and interpreting data for short- and long-term planning.
- (4) Identifying water needs for National Forest purposes in areas where State water adjudication proceedings are on-going.

1/ For comparability, \$1 million appropriated for SEAM is shown under Forest research and \$159,000 appropriated for Wild and Scenic Rivers on State and private lands is shown under General forestry assistance.

More directly, the program restores, through various cultural methods, degraded watershed lands caused by man's activities or natural disasters, to alleviate flooding and improve the quality and quantity of water. The program also directly affects water quantity and quality through scientific water management techniques such as prescriptions for timber cutting patterns, cover manipulation for increased water yield, and snowpack management.

The need for these services parallels the intensity of the various land management activities that are served by the program. The fiscal year 1976 funding level will provide services to over 65 percent of current land management activities.

The backlog of degraded watershed lands needing cultural treatment amounts to over 500,000 acres. The direct restoration work being done in fiscal year 1976 includes maintenance and reinforcement of past work to assure project success. Planned activities during fiscal year 1976 will restore approximately 30,000 acres.

The benefits from the soil and water program accrue both onsite and offsite. The onsite benefits are primarily related to maintenance and/or enhancement of the soil and water resources. A sustained yield of quality products from the National Forests is dependent on the maintenance of soil productivity. Currently, soil and water resource management prescriptions are prepared for about 5 million acres of National Forest System lands annually. In addition, benefits accrue from providing a quality environment for recreation use and other outdoor activities.

Offsite benefits from the program accrue to the downstream user of water flowing from National Forest lands. The 390.4 million acre-feet of high quality water produced from the National Forest is an example of the importance of water in the National Forest program. Costs for water treatment and maintenance of irrigation equipment are reduced, and the useful life of reservoirs is extended. In addition, fishery and wildlife values are enhanced and dangers from floods are minimized.

Some 4 years ago, a cost/effectiveness analysis was made of Forest Service water management techniques as they affected water yield. The average cost of producing an added acre-foot of water was \$5. Based on the downstream value of this water, the benefit/cost ratio was found to be very favorable in most instances.

Elements of the program relate directly to other programs outside the Forest Service. Included is work on watershed projects authorized under PL 83-566, other laws, and cooperation and participation in the National Cooperative Soil Survey. The regulation of herbicide use poses a constraint against the expansion of cover manipulation projects to increase water yield.

Extreme demands are being put upon available water supplies, particularly in the West. The Congress and the courts have determined that the United States has a right to reasonable use of water on National Forests reserved from the public domain except those waters appropriated before the National Forests were created. Efforts are underway to obtain sufficient quantities of water in accordance with legal authority for the administration and development of the National Forest System. This project on a watershed basis includes:

- (1) An inventory of present and foreseeable needs.
- (2) A determination of water availability.
- (3) An assessment of the potential for increasing yields in water-short areas.
- (4) Action to secure the water needed for National Forest purposes.

The western States want the Forest Service to complete the inventory program as rapidly as possible. The field inventory of Forest Service consumptive water uses is essentially completed. A major part of the total project effort is expected to be completed by fiscal year 1979.

Additional work is developing due to adjudication proceedings in some western States. Increasing judicial and administrative action in water rights is anticipated, both on lands reserved from the public domain and on acquired lands, over the next several years.

Watershed restoration and improvement projects for 1976 include:

- (1) The Palzo tract project (Illinois) where chemicals and sediment from old surface coal mining operations have seriously degraded water quality.
- (2) South Fork Roiston River and New River Watershed (Virginia) where sedimentation from old manganese mining operations affects slack water, wildlife and resident fisheries
- (3) The Holden mine tailings revegetation and stream channel stabilization project (Washington) where wind blown particles are creating air and water pollution problems.

The continuance of this program is important in order to enhance the quality of the environment and restore productive capacity of renewable resources. Also, restoring the hydrologic functioning of rural lands damaged beyond the point of natural recovery is essential to meet soil stability and water quality requirements.

Funds will be used to provide opportunities for utilizing the skills, and to furnish jobs and timely income for local people in rural areas of low income and critical under-employment. Illustrative of some of the specific activities are:

- (1) Emergency treatment and maintenance on the highest priority areas in the National Forest System lands burned over by wildfires.
- (2) Being responsive to treatment and maintenance needs on thousands of miles of abandoned "orphan" roads and trails that are great contributors of sediment and uncontrolled runoff, causing local problems of flooding and the resultant inability of water supply to serve agriculture, domestic, or recreational needs.
- (3) Maintenance and reinforcement of land treatment measures applied in prior years to eroding and gullied areas to assure establishment of ground cover and the proper functioning of control structures.
- (4) Removal of debris in stream channels above reservoirs and in anadromous fish streams.

Another important portion of the soil and water program is the environmental analysis and construction liaison with water resource development agencies.

Environmental analyses delineate the effects, define necessary mitigating measures, and identify enhancement opportunities relative to proposed water resource development associated with National Forests and National Grasslands. Reports resulting from such analyses document measures which are essential to the attainment of National Forest multiple use objectives and identify how National Forest management can contribute to project purposes to optimize their economic and social contribution to rural America. To be effective the analysis and report must be concurrent with the construction agency's preliminary planning to permit their findings to be incorporated in the licensing or authorizing document.

Liaison with the construction agency during the construction period is necessary to facilitate coordination between the construction agency and the Forest Service. Protection of the land and resources, minimizing interference with regular protection and management activities, and facilitating construction agency operations are direct economic dividends derived from this program

Experience has shown that without adequate analysis and liaison effort such as is provided by this activity, natural resources often suffer from enormous waste and misuse, and the project works fail to make their maximum contribution. Natural beauty and high quality water are among those resources most susceptible to loss. The rising value of forest resources and constant increase in demands against the declining resource base requires increased perception, scientific input and thoroughness in making environmental analyses and preparing reports.

Soil stabilization and cover improvement on lands tributary to water resource development projects reduce sediment yield, or modify the pattern of runoff and lengthen the life and increase the utility of water control structures.

This work is done on National Forest System lands tributary to the project, only where hydrologic analysis and other elements of the environmental analysis determine that such work is needed and that benefits to the project purpose are clearly established.

Treatment programs include the following:

- (1) Modifying the vegetation to decrease erosion, to reduce flood peaks, and to increase the annual quantity and improve the timing of water yielded from the tributary lands.
- (2) Clearing reservoir areas, where not done as part of construction, and keeping the reservoir free of debris to make the area safe for public use and to maintain scenic beauty.
- (3) Land treatment measures such as contour terracing, gully plugs, headwaters debris and flow retarding structures, and streambank and shoreline stabilization measures.

Essential land treatment and related measures are planned at small watershed projects authorized by PL-566 and PL-534, and at other major reservoir projects. Treatment measures will include soil stabilization and vegetation management to improve water quality and quantity. Also, in order to provide for public safety and user enjoyment of reservoir areas, debris and stump removal will be accomplished on about 12,000 acres.

Legislative Impacts

Wild and Scenic Rivers Act (PL 90-542). The purpose of this activity is to carry out comprehensive studies of rivers designated as potential additions to the National Wild and Scenic Rivers System. This Act named 27 rivers as potential additions to the National System. The Forest Service is the lead agency for the Department of Agriculture's river study work on nine of the 27 rivers. These nine are: Chattooga River in North Carolina, South Carolina, and Georgia; Flathead River, Montana; Illinois River in Oregon; Pere Marquette River in Michigan; Moyie, Priest, St. Joe and Salmon (main stem) Rivers in Idaho; and the Skagit River in Washington.

All studies are cooperative efforts with States, Federal agencies, and other interested groups and individuals and they provide for employment of local people to collect resource data and data on resource use and capability. The program effort during fiscal year 1976 will essentially complete work on seven of the nine studies. The Priest and Moyie Rivers studies will be in the second year of a planned 3-year effort.

Examples of Recent Accomplishments

Soil resource inventories were conducted on 18.7 million acres; detailed soil surveys were conducted on about 0.5 million acres in cooperation with the Soil Conservation Service and the State Agricultural Experiment Station; and water resource inventories were conducted on 11.6 million acres.

Resource protection requirements and design services were provided by geologists, hydrologists, and soil scientists on more than 5,700 projects.

Soil and water condition and trend observations along with monitoring effects of timber management, mineral developments, Boundary Waters Canoe Areas, and suspected pollution problem sites where people physically use the water resource are underway at 2,450 locations.

Cooperative studies are continuing with State Fish and Game Departments to determine minimum flows necessary for fish culture in connection with Federal Power Commission relicensing of "run of the river" power facilities.

Rehabilitation work is coordinated with other resource and service divisions to accomplish an integrated program of management under multiple use.

In fiscal year 1974, Forest Service crews treated and stabilized:

Acres of sheet eroded and deteriorated areas	46,700
Miles of streambanks and shorelines	223

Treatments to aid in restoring favorable watershed conditions on lands damaged by wildfire continued. Emergency measures (initial treatment on new burns and maintenance on older burns) were applied to 33 fires on 60,000 acres that required onsite protection and posed threats to life, property, public health, and watershed functioning.



MINERALS MANAGEMENT

		<u>Permanent full-time positions</u>
1974	\$3,436,000	153
1975	3,713,000	164
1976	6,943,000	222
Change	<u>+3,230,000</u>	<u>+58</u>

An increase of \$3,230,000, with an increase of 58 permanent full-time positions, is proposed as follows:

- (1) To carry out new mining regulations, \$2,600,000.
- (2) For costs of roadless area environmental impact statements, \$220,000. (See page 13.)
- (3) For coordination of minerals management needs with timber sale activities, \$242,000.
- (4) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$168,000.

GOAL: Administer pertinent laws and regulations to permit the uninterrupted flow of National Forest System mineral resources to the Nation's economy while insuring adequate protection of the surface resources and the environment; eliminate unauthorized uses of Federal land which may be occupied under the guise of the mining laws for purposes unrelated to mineral development.

Minerals Area Management

Due to the variety of its geologic environments, the National Forest System is one of the Nation's most important reservoirs of mineral resources. Nearly the full gamut of metallic and related nonmetallic deposits are represented, as are fossil fuels, geothermal resources, and the country's principal phosphate fertilizer reserves.

The Forest Service role in minerals area management, briefly but inclusively stated, is the administration and management of the lands under its jurisdiction, under pertinent laws and regulations, to permit the uninterrupted flow of National Forest System mineral resources to the Nation's economy while insuring adequate protection of the surface resources and the environment.

Minerals Area Management Workload

<u>Activities</u>	<u>Current Program FY 1975</u>	<u>Proposed Program FY 1976</u>	<u>Change</u>
General (1872) Mining Laws Administration ..	\$1,366,385	\$3,673,210	+\$2,306,825
Includes: 41,234 Mining claims			
1,507 Unauthorized uses			
125 Patent applications			
Mineral Leasing Acts Administration	1,009,090	1,694,090	+685,000
Includes: 6,038 Oil, gas, and coal			
applications covering 6,743,102 acres			
256 Other leasable			
mineral applications			
covering 318,935 acres			
1,103 Geothermal lease			
applications covering 1,434,480 acres			
8,318 Oil, gas, and coal			
leases covering 7,691,468 acres			

<u>Activities</u>	<u>Project (6)</u>		<u>Change</u>
	<u>Current Program FY 1975</u>	<u>Proposed Program FY 1976</u>	
7,280 Other mineral leases covering 176,929 acres 209 Geothermal leases covering 478,200 acres			
Reserved Mineral Rights Administration	\$138,250	\$ 187,460	+\$ 49,210
Includes: Coal, oil, gas, sand, gravel, and stone 669 cases covering 123,614 acres			
Outstanding Mineral Rights Administration	92,825	97,200	+4,375
Includes: Coal, oil, gas, sand, gravel, and stone 411 cases covering 155,160 acres			
Mineral Materials Disposal (Common Varieties) ...	273,895	300,000	+26,105
Includes: 1,853 applications covering 12,113 acres 1,994 leases or permits covering 21,470 acres			
Surface Mining and Reclamation	37,130	38,445	+1,315
Includes: 3,108 "surface mines" covering 11,535 acres 73 surface mine reclamation projects covering 2,685 acres 29 mine drainage treatment projects directly benefitting 83 miles of streams			
Land Use Planning	464,125	623,525	+159,400
Includes: Inputs for planning data from geologists, mining geologists, and mining engineers			
Geologic Aid and Interpretations (Specific Projects)	<u>331,300</u>	<u>329,070</u>	<u>-2,230</u>
Total	3,713,000	6,943,000	+3,230,000

Mining Regulations and Supervision

A greatly expanded workload will be created, beginning in the first half of fiscal year 1975, with implementation of the new regulations governing surface uses of National Forest lands by persons operating under the 1872 mining laws. The bulk of the additional workload will be due to:

- (1) The review of prospectors' and miners' operating plans and "notices of intention to operate."
- (2) Administration of operations under approved operating plans.
- (3) Preparation of environmental impact statements that may be necessary.

The kinds of operations that will be administered under the regulations will include simple prospecting, exploration and development work, assessment work, road construction and the like, up to major mining developments. Operations may be anything from "one-shot," and last no more than a few days or a few weeks, to enterprises that continue on a very large scale for many years. The regulations, and the operating plans they prescribe, are designed to encourage exploration for, and production of, locatable minerals on the National Forests by environmentally acceptable means.

Project (6)

The Forest Service expects to respond annually to about 4,000 proposed operating plans or notices of intention to operate involving from 30,000 to 40,000 claims or more. The request for \$2.6 million increase amounts to \$650 per proposal. Obviously, some will cost much less and others far more, depending on:

- (1) The nature and size of operations.
- (2) The complexity of the surface--subsurface resource relationships.
- (3) The environmental sensitivity of the area involved.
- (4) The duration of operations.
- (5) The degree of cooperation between operators and the Forest Service.
- (6) Whether or not an environmental statement is needed.

Double benefits can be expected to accrue from implementation and administration of the regulations. They can be measured by the better quality of surface resources and the environment resulting from firm administration of the environmental aspects of mineral-related operations, and by the uninterrupted flow of vital National Forest System mineral resources to the Nation's economy.

Examples of Recent Accomplishments and Activities

Completed land use plans to coordinate oil and gas developments with other resource management activities and uses in the Thunder Basin National Grasslands of western North Dakota.

Participated in the interdepartmental (with Interior--BLM) Decker-Birney resource study in southeastern Montana, an area containing massive coal deposits on the Custer National Forest and neighboring lands.

Worked with mining claimants to permit further exploration and development of metallic mineral deposits in the Sawtooth National Recreation Area in Idaho in accordance with the Act by which that recreation area was established.

Participated in studies that will, when completed, result in planned development and use of major phosphate reserves within the Caribou National Forest in Idaho by environmentally sound means. This is a major study involving a number of Federal departments and agencies and private and State organizations and individuals.

With the mining company, Washington State officials, and the City of Everett, Washington, worked out an environmentally sound method of developing a substantial metallic mineral deposit in the municipal watershed.

Worked with a major copper company to develop and conduct exploration resulting in the least possible surface impacts in a designated primitive area in Arizona.

Participated in two major interdepartmental studies with the Department of the Interior involving the environmental aspects of oil and gas and phosphate development proposals in Florida.

Worked with Interior, EPA, and other Federal departments and the State of Wyoming in planning for environmentally sound development and production of coal and related developments involving the Thunder Basin National Grasslands in western North Dakota.

Worked with the State of Colorado and American Metal Climax in developing environmentally sound plans for mining a major molybdenum deposit in Colorado. The results have been well received by conservation organizations and at least one award by such an organization has been made in recognition of the project.

Developed and promulgated, as of September 1, 1974, the regulations to alleviate the hitherto uncontrolled environmental impacts of surface use of National Forest System lands by operations under the 1872 mining laws on the lands to which those laws apply. This involved development of both major legal categories of mineral deposits--those subject to Federal leasing and those subject to the 1872 mining laws.

FOREST FIRE PROTECTION

		Permanent full-time positions
1974	\$36,359,000	1,184
1975	37,202,000	1,234
1976	37,904,000	1,238
Change	<u>+702,000</u>	<u>+4</u>

An increase of \$702,000, with an increase of 4 permanent full-time positions, is proposed as follows:

- (1) For fuel modification and fire prevention in support of the timber sale program, \$311,000.
- (2) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$337,000.
- (3) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$54,000

GOAL: Through land use plans and fire management plans, protect people, property and resources from fire and increase resource productivity, using fire by prescription.

This program provides management of fire for beneficial effects and for resource protection on 187 million acres of National Forest lands and provides protection for an additional 17 million acres. The program is designed to lower the flammability of forest and rangelands through improved land use planning, accelerated fuel modification, and expanded fire prevention.

Results are greater protection to lives, property and resources throughout rural America and the rural/urban interface where potential for loss is greatest.

The proposed budget will be used to finance protection measures approximately as follows:

	<u>1974</u>	<u>1975</u> (in thousands)	<u>1976</u>	<u>Change</u>
Fire prevention	\$8,346	\$8,075	\$8,229	+\$154
Fire detection	3,445	3,303	3,366	+63
Fire attack forces	15,522	17,617	17,580	-37
Air operations	4,270	5,138	4,863	-275
Fuel modification	1,498	2,569	3,366	+797
Equipment development and testing	470	500	500	- -
Modular Airborne Fire Fighting System	1,400	- -	- -	- -
Studies, surveys, plans, and training	584	- -	- -	- -
Tussock moth infested areas	824	- -	- -	- -
Total	36,359	37,202	37,904	+702

Annual losses from forest fire vary according to weather, forest vegetation condition, fire occurrence and firefighting preparedness. As examples, losses exceeded protection cost by 28 percent in 1970 while losses exceeded protection cost by 500 percent in 1971. Total losses have exceeded protection cost by \$480 million in the period 1970-1974. Losses are growing at a rapid rate while protection costs are essentially the same. Currently losses exceed protection cost by 260 percent.

Losses are expected to decline with this program as a result of improved effectiveness and efficiency of program action.

Program benefits of protecting the Nation's natural resources from fire occur both in rural and urban areas. Protection of timber resources benefits the lumber and home building industry. Benefits to rural and minority employment result through direct employment of firefighting forces and indirectly as employment is generated from a productive National Forest.

The quality of the environment is improved through scientific smoke management and application of sound fire management practices, including the prescribed use of fire. Uncontrolled fires become less tolerable each year as the interface between rural and urban areas increases.

The threat of fire to the timber resource becomes more critical as more areas are harvested, public access is expanded when roads are built into remote areas, and intensive management is applied to more forested areas. Protection benefits the timber resource and thusly the lumber and home building industries. Management of the timber resources requires the support of an effective program for lowering the flammability of forest lands through improved land use planning, accelerated fuel modification, and expanded protection.

Land and resources protected by the Forest Service are subject to more use by recreationists, travelers and others for special purposes, collectively increasing the risk from man-caused fires. Paradoxically, response of the land to good management practice often creates combustible fuels where few existed before. The challenge is to meet the burgeoning problem of increased hazard and risk. Where possible, effort has been made to make improvements in fire prevention, preparedness, suppression, and modification of fuels to increase effectiveness and efficiencies.

Examples of Recent Accomplishments

Fire training and safety. Major thrusts in national fire training have been in two areas. Fire management's relationship to land use planning and improved performance in large fire suppression through command and safety training. The entire effort has the added dimension of complete interagency cooperation with States, Canada, and the Department of the Interior as attested by joint participation in four training sessions for more than 340 trainees in fiscal year 1975.

The expected results are: Improved land management through land use planning; better understanding of ecosystems dynamics; more effective management of large fire situations using modern management techniques; and integration of viable safety functions in emergency organization that reduces accidents.

The fire safety program is closely tied to the training program in a comprehensive effort to modernize the fire safety function and define its proper role in large fire suppression. Complex and expensive systems, used in dangerous situations, demand highly skilled safety support by fully trained experts. Approximately 60 people will receive this training in fiscal year 1975.

Fuel treatment. Work in this program consists of constructing new fuel breaks, maintaining existing fuel breaks, making vegetative type conversions in highly hazardous fuel areas, cleanup of forest debris along roadsides, and treatment of forest fuels to improve protection from fire and achieve ecological benefits.

The rate of progress being made in lowering the flammability of forest lands is illustrated by the 150,000 acres of forest fuel reduction which was accomplished in fiscal year 1974.

Aviation management. A contract was let for seven Modular Airborne Firefighting Systems (MAFFS) to FMC Corporation, builders of the prototype system. Two of the production systems, together with a prototype, were available for operational use during the 1974 fire season. Six aircrews, representing the regular Air Force, Air Force Reserve and the Air National Guard, were trained and qualified as air tanker crews by Air Force and Forest Service instructors. MAFFS was dispatched to a fire on the Lincoln National Forest in Nebraska and to one on the San Bernardino National Forest in California. A number of successful drops were made on each fire. MAFFS, in a C-130 Hercules aircraft, operated with available commercial air tankers.

The new single national contract for air tankers was used for the first time in 1974. Experience with the new contract indicated that the single-contract concept is workable and effective. A national contract for helicopters is being prepared for the 1975 season.

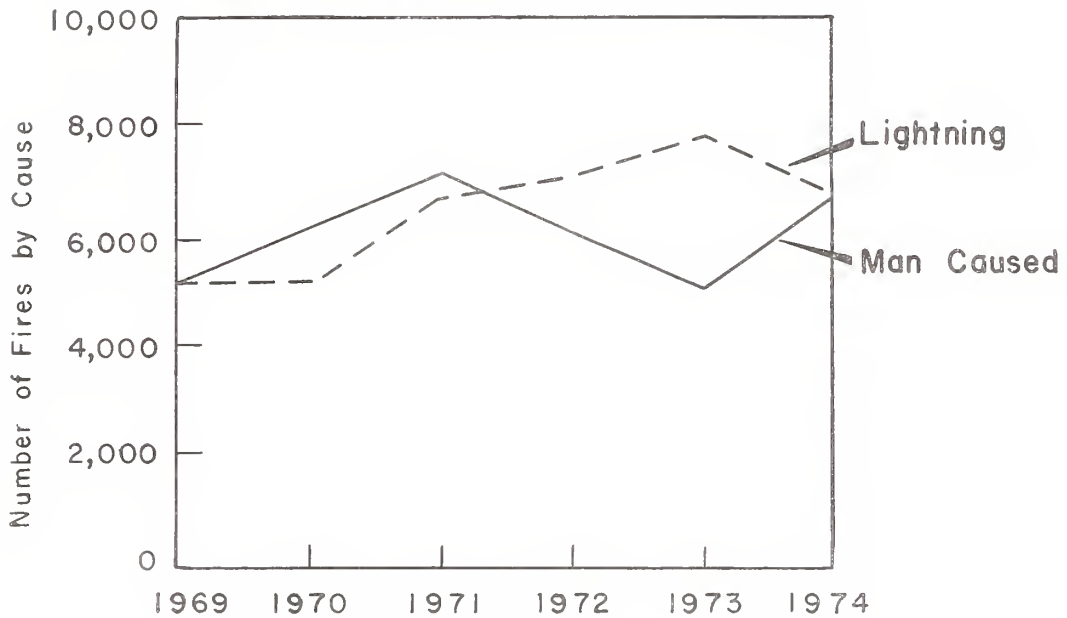
Project (7)

Standardized contract specifications for use in all helicopter contracts are being finalized. These specifications were developed with the Department of the Interior's Bureau of Land Management and Office of Aircraft Services.

Mobilization of firefighting forces. During 1974, the mobilization effort was to have firefighters and their equipment ready to take action on a fire when it occurred. The success of this effort is evidenced by 12,007 fires out of a total of 12,637 fires being controlled at less than 10 acres. This is an improvement of 479 fires over the five-year average and is the result of the deployment of firefighting forces which consisted of moving them from areas of moderate fire danger to areas of higher fire danger through coordination efforts.

At the Boise Interagency Fire Center (BIFC) in Idaho the Forest Service, National Weather Service and Bureau of Land Management work closely together with their field organizations to constantly monitor the national fire situation. BIFC coordinated the transportation and the prepositioning of firefighting resources from low to high fire danger areas throughout the United States. As fire situations become critical firefighting resources are placed on alert or sent to fire threatened areas on a national basis.

NUMBER OF LIGHTNING AND MAN CAUSED FIRES BY FISCAL YEARS



TOTAL NUMBER OF FIRES AND NATIONAL FOREST PROTECTED ACRES BURNED BY FISCAL YEARS

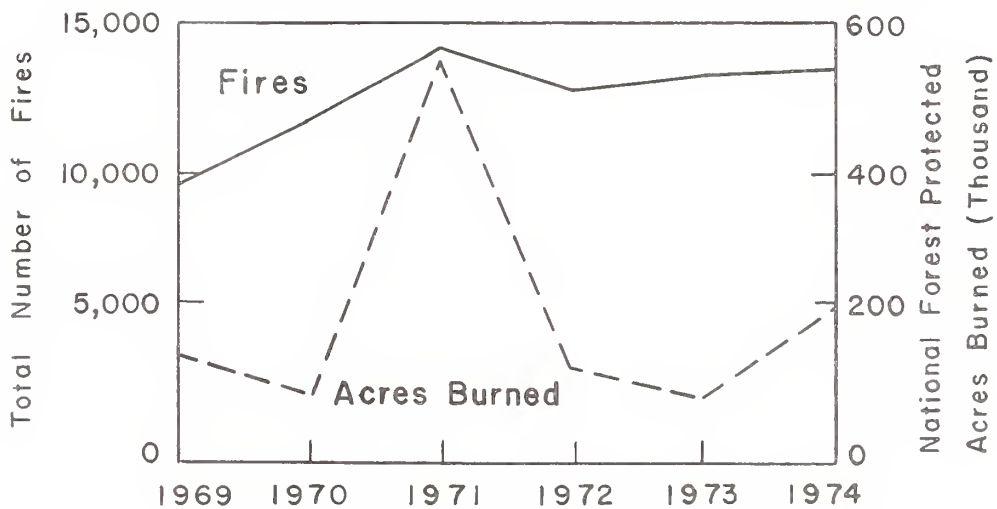


Figure 7

GENERAL LAND MANAGEMENT ACTIVITIES

		Permanent full-time positions <u>1/</u>
1974	\$24,741,000	852
1975	26,984,000	821
1976	31,509,000	881
Change	<u>+4,525,000</u>	<u>+60</u>

A net increase of \$4,525,000, with an increase of 60 permanent full-time positions, is proposed as follows:

- (1) To improve the standards of administration of special uses, \$1,511,000 increase.
- (2) For maintenance of fire and general purpose facilities, including communications, required to maintain health and safety, \$301,000 increase.
- (3) Increases for marking land lines and monuments (\$823,000), land exchange program (\$125,000), land classification program (\$22,000), geometronics program (\$37,000), maintenance of facilities (\$662,000), and coordination of special use needs (\$15,000) in support of timber sale activities.
- (4) To reimburse the Employees' Compensation Fund, \$471,000 increase.
- (5) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$564,000 increase.
- (6) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$14,000 increase.
- (7) Decrease of \$20,000 for non-recurring cost of the special Bicentennial and Forestry Centennial booklet.

The total program for fiscal year 1976, compared with 1974 and 1975 follows:

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>Change</u>
		(in thousands)		
(1) Land classification	\$787	\$844	\$884	+\$40
(2) Land exchange	3,681	3,937	4,148	+211
(3) Land status records and cadastral engineering (land line location)	4,088	4,473	5,407	+934
(4) Geometronics	1,298	1,388	1,455	+67
(5) Maintenance of improvements for fire and general purposes (including communications)	8,972	9,593	10,776	+1,183
(6) Special uses--non-recreation	3,615	3,869	5,508	+1,639
(7) Payments to Employees' Compensation Fund ..	2,300	2,860	3,331	+471
(8) Bicentennial and Forestry Centennial	- -	20	- -	-20
Total	24,741	26,984	31,509	+4,525

GOALS: Provide for orderly occupancy and use of National Forest System lands while protecting the resources; to provide for land classification, land exchange, boundary adjustments, landline location, a land record system, maps and surveys for managing and administering primary activities on National Forest System lands.

To support the Forest Service land management programs by providing adequate maintenance of fire, administrative, and other purpose improvements.

Issue and administer land use permits when consistent with the public interest and good land management practices, for such purposes as assistance to the economic development of rural areas, energy development, antiquities study, and communications and utilities transmission.

1/ Excludes following positions in other agencies that receive funds from the Forest Service: 1974, 14; 1975, 26; 1976, 26.

- (1) Land classification (\$884,000, an increase of \$22,000 in support of timber sale activities and \$18,000 for increased pay costs)

The function of land classification is to structure and recommend programs concerning the extent, location, and composition of the National Forest System that will most effectively further national objectives. Purposes and activities are directed toward improving the landownership pattern to facilitate protection, management, development and use of recreation, timber, range forage, water, and wildlife resources, all of which can contribute significantly to growth of rural economies. Another activity will be to survey the degree of utilization of public lands pursuant to E.O. 11724 of June 25, 1973.

Financing at the level indicated will enable Forest Service to meet pressing needs for:

- (a) Continuing involvement in Alaska and cooperation with the Department of the Interior and Congress in considering proposals and alternatives for additions of 80 million acres of Federal lands to the four national conservation systems, including new National Forests, as provided in the Alaska Native Claims Settlement Act. A completion of Congressional action on these proposals by December 18, 1978, is contemplated in the Act.
- (b) Consideration of application for land by the State of Alaska, which is authorized to select up to 400 thousand acres of National Forest land under the Alaska Statehood Act.
- (c) Identification and detailed analysis of areas within and adjacent to National Forests and National Grasslands to determine the changes which should be made in landownership patterns to increase efficiency of administration and to facilitate accomplishment of national objectives. Of particular urgency are intensive unit planning projects and participation in joint agency planning efforts.
- (d) Evaluation of possible transfer of Federal lands to or from the National Forest System, including consideration of lands claimed by Indians, and jurisdictional transfers at numerous Federal water control projects particularly important for outdoor recreation.
- (e) Analysis and classification of lands with potential for national recreation areas, monuments, wildlife preserves, or other special status.

Continual review of the location and extent of the National Forest System components is desirable to determine the best land use and ownership patterns considering new developments and needs. The 155 National Forests and 19 National Grasslands located in 44 States and Puerto Rico include nearly 40 million acres of non-Federal land. Programs for consolidations of landownership within existing boundaries of these units need to be based upon consideration of careful analyses of their short- and long-range effects.

Examples of Recent Accomplishments

Completion of the final impact statements for 18.8 million acres on proposed new National Forests in Alaska under provisions of the Alaska Native Claims Settlement Act.

Secured National Forest status for 10,800 acres of public domain lands within the Sawtooth National Recreation Area in Idaho.

Evaluated 700,000 acres in various alternatives to the Hells Canyon-Snake River (Idaho) proposal and prepared recommendations to the Congress which we believe will best serve long-term public needs.

Provided expertise and a key coordination role in the preparation of the Cross Florida Barge Canal environmental statement.

Completed the Lake Koocanusa (Libby Dam), Montana, interchange with the Corps of Engineers resulting in a jurisdictional adjustment of over 13,700 acres contributing greatly to administrative efficiency.

Studied and reported on proposed jurisdictional adjustments with the National Park Service involving several hundred thousand acres at the Grand Canyon in Arizona and the South Fork of the Cumberland River in Kentucky and Tennessee.

- (2) Land exchange (\$4,148,000, an increase of \$125,000 in support of timber sales activities and \$86,000 for increased pay costs, with an increase of 3 permanent full-time positions;)

Properly conceived land exchanges result in alleviating the need to construct certain road segments, the location and marking of property lines, the issuance of certain special-use permits, and other management costs. The consolidation of ownership through land exchanges results in a \$10 cost avoidance for every dollar spent in accomplishing the program. Selected examples of estimated cost avoidance which will result during the next 10 years, from the fiscal year 1976 exchange program, are (dollars in thousands):

<u>Reductions</u>	<u>Units</u>	<u>Amount</u>
(a) Property lines and corners	1,030 miles	\$1,236
(b) Road construction and maintenance	75 miles	3,750
(c) Use permits and occupancy trespass	300 cases	1,200
(d) Road right-of-way needs	190 cases	114
Total		6,300

Revenue increases to the United States Treasury can also result through well planned exchanges. Access road problems can be eliminated and make heretofore inaccessible mature timber stands available for harvest to the mutual benefit of the United States and timber companies in need of timber supplies. The rural economy is also benefited. Significant benefits can be realized for both the United States and private owners engaged in livestock operations through the consolidation of ownerships, thus reducing costs and improving management of the ranges.

Carefully designed land exchanges can make material contributions in bettering rural America and the communities located within or near the boundaries of the National Forest System. Communities are frequently aided through exchanges that provide lands for expansion and development.

The fiscal year 1976 land exchange program will involve the examination and appraisal of 200,000 acres involving an estimated 200 proposed exchanges. The land the Government gives and receives in exchanges must be examined and appraised. Following examination and appraisal, negotiations are expected to be completed and 120 cases approved during the fiscal year involving a total of 120,000 acres.

- (3) Land status records and cadastral engineering (land line location) (\$5,407,000, an increase of \$823,000 in support of timber sale activities and \$111,000 for increased pay costs, with an increase of 14 permanent full-time positions)

- (a) Land status records. This is a systematic search of records and the presentation in plat, tabular record, and supplementary form of all ownership interests, and Congressional and administrative actions which limit or otherwise affect administration of the National Forest System or the use of adjoining lands by the owners thereof. It is the record of what land interests the Forest Service must administer. Significant progress is necessary to meet the expanding need for correct currently available records of Forest Service landownership, use, and encumbrances.

Project (8)

The National Forest System was created and altered to meet changing needs by many Acts of Congress and administrative actions in accordance therewith. Some 160 million acres were reserved from the public domain.

A system has been developed to assure that accurate status information is assembled and records kept current at a central point and supplied to all field offices of the Forest Service. In converting to this system, all public records are reviewed and entered. Maintenance of records is done in the nine regional offices and supplied currently to some one thousand field offices. Time devoted to maintenance of the converted records has slowed down conversion of the remaining records. The project is over 89 percent completed. The conversion job is scheduled for completion by the end of 1976.

The systematic search and review of records in the conversion project continues to reveal, and identify more clearly, many parcels and general areas which have previously been misunderstood, identified inaccurately, or overlooked in administration due to inadequate records and poor identifying ties between records and ground location.

Users of these system records (Forest Service and other Government agencies, adjoining, and other public users) are enthusiastic about them. They give confidence in administration and reduce areas of potential ill-will with adjoining and users of public and private resources.

Work Proposed for 1976

	<u>1974</u>	<u>1975 planned</u>	<u>1976 estimated</u>
Townships completed	1,000	900	800
(Total program: 15,561 mapping units--accomplished through calendar year 1974 - 13,862)			

- (b) Cadastral engineering (land line location). Accurate property lines, in conformance to statutory law or judicial interpretation, is a necessary part of every resource activity in order to manage and use that resource properly. A lawful property line instills confidence in responsible land managers. Nationwide timber potential yield can be increased by as much as 6 percent by managing to the lawful property line. This contributes to the stability and growth of the rural economy.

Unknown, unidentified or uncertain location of property lines adversely affects the management of National Forest or adjoining lands. The lack of definite or improperly marked land lines impedes orderly harvest and management of timber. The Forest Service often will not offer sales near uncertain property lines or sales and/or cutting boundaries will be moved back from questionable lines as a safety factor. This often leaves buffers of uncut timber which could cause future trespass, or may result in losses from insects, disease, and blowdown. Accurate, plainly marked property lines allow effective National Forest management throughout the entire area of responsibility. Identified and posted land lines help insure continued sale of the full allowable timber cut without delaying timber harvest of mature and overmature timber stands.

An investment in intensive management of National Forest lands against an adjoiner must be preceded by a lawfully established property line, if the job is to be done properly.

There are about 272,500 miles of property lines between National Forest System lands and adjoining land owned by others. Presently, only about one-tenth of these property lines are adequately located and marked.

About 1,160,500 property corners are required to locate and perpetuate these property lines, with an additional 210,900 corners not on the property lines but needed to control the property corners. Many of these corners were established 50 to 200 years ago. A large share of them have disappeared because of neglect, carelessness, and destructiveness. Many have not yet been reestablished.

Corner search under this program has revealed that about 30 percent of previously established corners are missing and must be restored through relatively expensive cadastral surveys. The search also reveals that many corners are in such poor condition that their loss is imminent unless quick action is taken.

The following has been accomplished since the program was initiated in 1958:

Fiscal Year 1958 - 1974

Corners:

1. Searched	325,183
2. Found acceptable evidence of corner	232,240
(a) Do not need remonumentation	63,260
(b) Need remonumentation	169,971
(1) Remonumented by Forest Service	102,947
(2) Remonumented by Bureau of Land Management/ Forest Service cooperation	48,340
3. No acceptable evidence of corners found, cadastral surveys needed to establish corners	92,943
(a) Corners established by Forest Service cadastral surveys	44,490
(b) Corners established by Bureau of Land Management cadastral surveys	17,488
4. Miles of cadastral surveys run to reestablish missing corners and establish new corners required:	
(a) By Forest Service	21,575
(b) By Bureau of Land Management	17,068

Property Lines:

Miles marked to standard	21,575
Miles marked to interim standard	11,198
Miles inspected and maintained	4,992

The Forest Service has been fairly successful in obtaining help and support in this work from some of the adjoining landowners.

Most of the activity to date has been to search out and preserve "thread hanging" corners to prevent their complete loss. For every such corner found in time and preserved, a future expenditure of about \$1,000 for a cadastral survey is saved. The average cost to search out and permanently preserve a corner by remonumentation is \$100.

Trespass that results in costly litigation and time-consuming "untangling" procedures can be mostly eliminated by timely and adequate marking of property lines.

Since 1966, an annual transfer of the appropriation for this program has been made to the Bureau of Land Management, Department of the Interior. The money was used for urgent cadastral surveys to reestablish property corners that were determined to be lost through the Forest Service corner search activity. In fiscal year 1976, \$515,000 is planned for transfer to BLM.

The work to be done under the cadastral program is shown in the following table. This work is carried on in every State in which the Forest Service administers land.

Work Proposed for 1976 as Compared with 1974 and 1975

	FY 1974 (Accomplished)	FY 1975 (Planned)	FY 1976 (Planned)
<u>Corners (Nos.)</u>			
Search	22,475	25,000	25,000
Remonument	11,286	12,000	15,000
Establish or reestablish ..	7,393	4,500	7,000
<u>Boundaries (miles)</u>			
Locate and mark:			
To full standard	2,298	2,200	2,400
To partial standard	469	1,000	500
Maintenance	645	1,000	1,000

Examples of Recent Accomplishments

The accomplishment since 1958 in comparison to the total inventory of property corners and lines is as follows:

Corners searched	28 percent of total
Property lines marked	12 percent of total

Work has been programed in areas of most urgent need, thus obtaining maximum immediate benefits.

One-third of the corners revealed as missing by the corner search phase to date has been reestablished by cadastral surveys.

- (4) Geometronics (\$1,455,000, an increase of \$37,000 in support of timber sale activities and \$30,000 for increased pay costs).

Multiple use planning requires a knowledge of the terrain, the extent and location of the natural resource and how they are tied in with, and related to, existing and planned management programs within a planning unit. Environmental information is essential in the planning of timber sales and related facilities.

In response to this need, a layered mapping system consisting of basic data plates (culture, land grid, and drainage) is being implemented. The functional data plates (recreation information, fire closures, range types, and soils) are combined with the appropriate basic data plates to produce the required management tool. The objective is to incorporate all the functional map efforts into a coordinated system tied to a common map base.

These advancements promise significant reductions in field operations and ultimately in cost and manpower savings. Investigations are underway to provide more comprehensive and efficient methods for recording, storing, retrieving, and displaying interrelated terrain and resource data. Digitizing various forms of data for computer handling is an essential element in this process. These displays are in various forms--tabular data, seen area plats, slope and aspect maps, resource layers, orthophotos, and engineering data.

The goal for fiscal year 1976 is the production of 13 National Forest multi-layered, secondary base series maps (1/2" per mile scale) as follows:

	1974	1975	1976
Resource inventory (primary series) 1:24,000 scale			
quadrangles	590	708	700
General management (secondary series) Forests	12	12	13
Regional series	1	1	- -

Project (8)

This will be accomplished by utilizing the primary map data plates and resource inventory information acquired on the forests.

In addition, funds for fiscal year 1976 will be used to develop new geometronic process and display techniques.

- (5) Maintenance of improvements for fire and general purposes (including communications) (\$10,776,000, an increase of \$301,000 for maintenance of fire and general purposes facilities required to maintain health and safety, increase of \$662,000 in support of timber sale activities, increase of \$220,000 for increased pay costs, with an increase of 11 permanent full-time positions)

This program provides for maintenance and for minor betterment, minor construction or replacement of buildings, utilities, pollution abatement facilities, airfields, communications systems and related structures throughout the National Forests and National Grasslands. The value of existing improvements exceeds \$300 million. These facilities are essential to the achievement of program outputs of the Forest Service including the protection, management and development of National Forest lands for minerals and recreation use, forage, timber and water protection, and for enhancement of fish and wildlife habitat.

It is essential that the physical plant, upon which all Forest Service programs depend, be brought up to acceptable standards and be maintained at that level. These funds will be used toward maintaining the following:

Type of facility

Fire lookouts, towers, and observatories	1,500
Dwellings, cabins, barracks, and trailers	5,900
Field offices	800
Storage and service buildings	8,000
Water and sewer systems	5,000
Radio units	22,100
Landing fields and heliports	500
Miles of telephone lines	7,500
Miles of administrative fences	1,200

Maintenance funds are proportionately distributed to field units based upon number of improvements by classes currently justified by program use and an analysis of unit maintenance cost.

- (6) Special uses--non-recreation (\$5,508,000, an increase of \$1,511,000 to improve the standards of administration of special uses, \$15,000 increase in support of timber sale activities, increase of \$99,000 for increased pay costs, and increase of \$14,000 for GSA space costs, with an increase of 32 permanent full-time positions.)

Fiscal year 1976 funding will be focused on those uses essential to the Nation and its communities' well being. Each permitted use will be accompanied by the necessary administrative attention to assure minimum levels of land and resource stewardship.

On-Going Program

Under this program applications are reviewed, and special use permits are issued and administered for a variety of uses which support development and utilization of energy resources, economic development of rural areas and provide a land base on utilities and communications. Other uses involve:

- (1) Agriculture
- (2) Community improvements
- (3) Industry
- (4) Public information
- (5) Research study and training
- (6) Transportation
- (7) Water resources

In fiscal year 1976, more than 52,600 special use permits covering over 6 million acres will be in force.

Of particular importance is the impact on National Forest lands and resources caused by the energy crisis. Many land uses are associated with coal development in Western United States, as well as gas from Alaska to the lower 48 States and its distribution therein. The proposed increase of \$1,511,000 will bring administration of 75 percent of the existing permits to a standard that will assure permit compliance, conformance with law, and protection of the environment and timely termination of the use.

The trans-Alaska pipeline authorization (PL 93-153) provides for reimbursement to the U. S. Treasury for all extraordinary work relating to these rights-of-way. The Forest Service will spend about \$300,000 in fiscal year 1976 on such work from within the total available under this item. There are no specific provisions in the law which require reimbursement of costs for other rights-of-way or types of uses. Response to such applications must be made from existing funds regardless of the number or complexity of applications. Although the intent of Congress was expressed in the Independent Appropriation Act of 1952 that Government agencies obtain reimbursement when goods and services are provided to persons beyond the level provided to the public at large, it has not been stated elsewhere or specifically as in PL 93-153.

Fiscal year 1974 receipts from special land uses were \$1,571,000. The fee value of free permits is estimated to be about \$2.7 million. It is estimated that fiscal year 1976 receipts will be \$1.9 million.

New Program Dimensions

With the resource impacts caused by the energy crisis, it will be necessary to rely on industry to finance basic resource data on soils, geology, vegetation, archaeology, hydrology, weather, air and water pollution, in order to prepare timely and responsive environmental impact statements in compliance with NEPA.

The current budget of \$100,000 will allow proper administration of archaeological permits which are issued to provide knowledge of the past.

(7) Payments to Employees' Compensation Fund (\$3,331,000, an increase of \$471,000)

These funds will be used to reimburse the Employees' Compensation Fund, Department of Labor, in accordance with PL 86-767 (5 USC 785), which was enacted September 13, 1960, for benefit payments made from that fund to employees of the Forest Service who are injured while in the performance of duty. The 1975 payment was \$2,859,969.

(8) Bicentennial and Forestry Centennial (Decrease of \$20,000 for non-recurring cost of the special booklet)

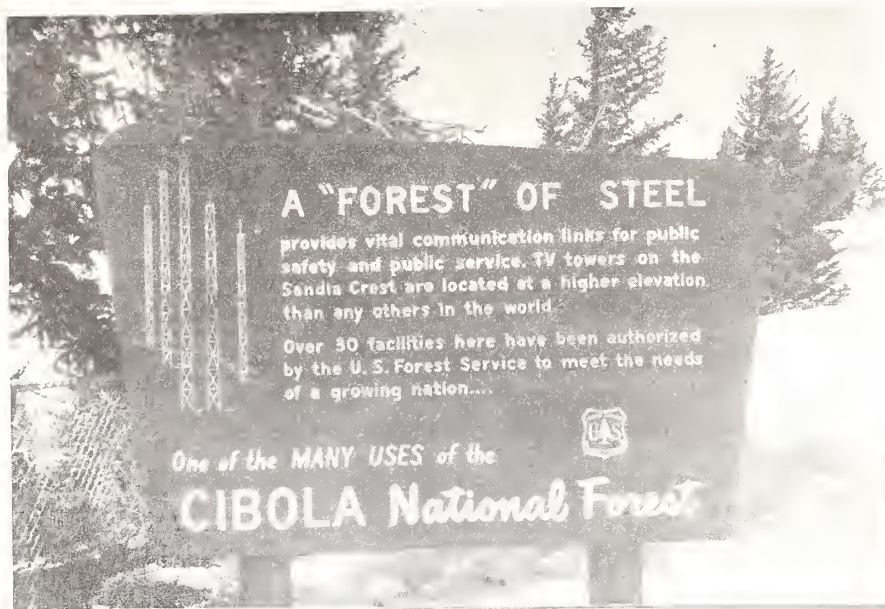


Figure 8-1

GAS PIPELINE CROSSING TUNDRA AT 12,000 FEET ELEVATION



Location before construction.



Location during construction. Note low level of ground disturbance. Cable in foreground used to pull pipe through trench.



Background shows covered trench.

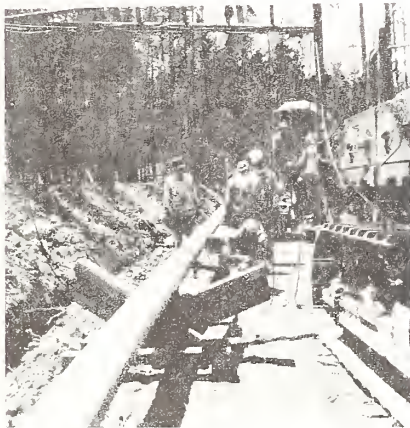
GAS PIPELINE IN MOUNTAINOUS COUNTRY



Right-of-way clearing



Utilization of material from clearing



Laying welded pipe in trench



Welding sections of pipeline



Back filling after pipe is laid



The pipeline, a road, and powerline in same corridor

Figure 8-3

FIGHTING FOREST FIRES

		<u>Permanent full-time positions</u>
1974	\$106,875,000	391
1975	4,275,000	354
1976	<u>4,275,000</u>	<u>354</u>

No increase is proposed.

This program provides an initial amount for suppressing forest fires on or threatening National Forests and Grasslands which cannot be handled by the regular forest fire protection program. This initial appropriation is supplemented each year to the extent necessary to cover all emergency forest firefighting costs.

Included are expenditures for men and equipment to control large fires. In addition, when critical conditions present an unusual threat, men are engaged in special efforts to prevent fires and temporary forces are used at strategic locations to be available to attack fast-spreading fires.

The volume and scope of emergency forest firefighting varies annually according to severity of burning conditions and the extent of the forest fire protection program. This program and the forest fire protection program are directly related. The cost of fire protection on the National Forests and Grasslands is the sum of the two programs.

Calendar Year 1974 Fire Season

Beginning in April, extreme fire weather conditions in Arizona and New Mexico created critical fire situations. The 14,469-acre Spring Fire, Lincoln National Forest, was particularly damaging. Fire weather moderated until late June when the National Forests in the Southwest Region were hit with 628 fires in 10 days. Less than 2 percent of these became large fires because of the effectiveness and preparedness of firefighting forces. Two of the largest fires during this period were the 26,000-acre Salvation Fire on the Gila National Forest and the 14,438-acre Cottonwood Fire on the Lincoln National Forest.

Beginning in mid-summer, a moderate to severe drought occurred throughout the Intermountain West. There was a 24 percent increase in the number of fires in this area.

During late August, in Southern California, the 14,953-acre Soboba Fire required a massive cooperative agency suppression effort. Large numbers of men backed by strong logistic support of equipment and supplies were necessary to suppress this wildfire.

Through October 31, 1974, 13,637 fires burned 143,963 acres. This is a 3 percent increase in the number of fires and a 29 percent decrease in acres burned based on the past 5-year average. Of the total fires, 6,359 were man-caused fires.

GEOGRAPHIC BREAKDOWN OF PROGRAM LEVEL - Fiscal Year 1974

Fighting Forest Fires

Alabama	\$107,498
Alaska	118,833
Arizona	13,588,304
Arkansas	256,672
California	29,289,285
Colorado	1,009,230
District of Columbia	1,792,304
Florida	136,763
Georgia	67,950
Idaho	11,198,634
Illinois	20,512
Indiana	18,008
Kentucky	85,891
Louisiana	74,645
Maine	7,692
Maryland	9,290
Michigan	216,443
Minnesota	108,418
Mississippi	152,730
Missouri	240,663
Montana	11,172,730
Nebraska	99,648
Nevada	538,522
New Hampshire	13,856
New Jersey	10,100
New Mexico	8,804,035
North Carolina	223,276
North Dakota	7,394
Ohio	16,622
Oklahoma	32,598
Oregon	15,957,277
Pennsylvania	37,259
South Carolina	160,194
South Dakota	183,634
Tennessee	59,809
Texas	39,257
Utah	1,771,183
Vermont	18,333
Virginia	250,572
Washington	7,602,750
West Virginia	40,229
Wisconsin	65,437
Wyoming	1,070,520
Total	<u>106,875,000</u>

The amounts for 1975 and 1976 have not been distributed by States. Locations of emergency firefighting funds cannot be forecast with any degree of accuracy.

FOREST INSECT AND DISEASE CONTROL

		<u>1/</u> Permanent full-time positions
1974	\$17,432,000	236
1975	11,462,000	225
1976	11,579,000	225
Change	<u>+117,000</u>	<u>- -</u>

An increase of \$117,000 is proposed as follows:

- (1) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$82,000.
- (2) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$35,000.

No change is proposed for permanent full-time positions in the Forest Service.

The forest pest control program involves protection of the forest from depredation by insects and diseases on lands of all ownerships. Activities include:

- (1) The prevention, detection, evaluation, and suppression of pests on all Federal lands.
- (2) Coordination of the program on lands of all ownerships.
- (3) Federal financial assistance to States for a similar program on State and private lands.

Forest pests seriously reduce the potential timber resource through direct killing of trees and growth loss on living trees. Much of the killed volume is dispersed throughout the entire forest and becomes unusable before it can be harvested. Intensive management of the timber resources is geared to using the optimum portion of the productive capacity of the forest land. Achievement of optimum timber production is dependent on a strong program for prevention, detection, evaluation, and suppression of all insect and disease pests.

The program for fiscal year 1976 will continue the strong effort to hold losses caused by bark beetles to tolerable levels. It is not possible to predict this far in advance the exact locale or scope of control operations, but present beetle activity indicates a need for:

- (1) Mountain pine beetle control projects in Colorado, Idaho, Montana, Oregon, South Dakota, Wyoming, and Washington.
- (2) Douglas-fir beetle, fir engravers, and western pine beetle control projects in California, Oregon, and Washington.
- (3) Spruce beetle control projects in Alaska, Arizona, Colorado, New Mexico, Oregon, and Washington.
- (4) Southern pine beetle control projects in Alabama, Arkansas, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.

Defoliating insects--particularly the gypsy moth and spruce budworm--will be suppressed where resource values are seriously threatened by them and benefit/cost ratios are favorable. Firm data are not available as yet, but it is expected that projects will be required to suppress:

- (1) Spruce budworm in Maine, Minnesota, and Montana.
- (2) Gypsy moth in New Jersey, New York, Pennsylvania, and Rhode Island.
- (3) Jack pine budworm in Michigan and Wisconsin.
- (4) Sawflies in Michigan, Minnesota, and Wisconsin.
- (5) Cankerworms and leaf tiers in New Jersey, New York, Pennsylvania, and Virginia.

1/ Excludes following positions in other agencies that receive funds from the Forest Service: 1974, 7; 1975, 12; 1976, 10.

Every effort is being made to strengthen procedures for making detection surveys and biological evaluations. The future goal is to cut detection time in half and to obtain more precise figures concerning the status of specific pests. By decreasing the time during which pests go undetected and better predicting the course they might follow, suppression costs can be lowered and destructive losses to the Nation's timber supply reduced.

Data are critically needed to determine the forest resource impact caused by insects and diseases for purposes of making meaningful control decisions. Target data will be biological, environmental, and economic in nature. There will be four major thrusts in this urgent activity:

- (1) Compile and sort existing information and store for retrieval and analysis.
- (2) Develop and improve existing insect and disease detection and biological surveys, using rigorous statistical techniques of gathering, screening, storing, and analyzing data.
- (3) Redesign existing detection, biological, economic, and environmental survey procedures to gather resource impact data.
- (4) Initiate special evaluations to gather impact data on soils, vegetative, and stand structure changes; tree mortality and growth loss; recreation; fire hazard; and watershed.

Complete forest resource impact data on which sound suppression decisions can be based are the best means of determining when and where insect and disease control is necessary to meet forest management objectives. Although difficult to quantify, sound, dependable impact data will improve overall efficiency of pest management strategies and should lead to reduced costs on a unit basis over the long run.

Costs have greatly increased since the implementation of the National Environmental Policy Act of 1969. Not only have additional monies been required to prepare and review environmental statements, but restrictions on pesticides have seriously affected the capability to deal with major outbreaks of forest pests. Several pesticide registrations have been canceled leaving no effective method for reducing destructive losses occurring to the Nation's timber supply. When less persistent chemicals have been available as substitutes, a larger effort has been required to monitor outbreaks for proper timing of application. Much of the effort is devoted to screening and testing of alternate chemicals and other means of managing pest populations.

An evaluation of current policies and control strategies in dwarf mistletoe suppression projects is underway. An analysis of the current input from all Forest Service regions indicates the need for more standardized control criteria. These criteria will be drafted in calendar year 1975. Funding will be discontinued until an acceptable control strategy has been developed.

An evaluation of the current oak wilt program indicated only partial success through the control effort. Funding of this project will be discontinued until more effective control methodology can be developed.

White pine blister rust control will be continued primarily as part of the Department of the Interior's program. Some small projects on State and private lands will be undertaken by the Forest Service. Careful evaluation of rust conditions and hazard has reduced the area requiring control materially in recent years.

Pest outbreaks fluctuate greatly. The cost to check and contain outbreaks cannot be accurately predicted. Using past experience as a guide, along with the knowledge of developing situations, Federal fund needs for fiscal year 1976, as compared with 1974 and 1975, are as follows:

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>Change</u>
	(in thousands)			
Technical assistance, training, impact, detection and evaluation	\$7,885	\$7,713	\$8,164	+\$451
Methods improvement	283	226	145	-81
Bark beetle control	3,018	1,864	1,817	-47
Defoliator control	5,530	1,135	1,123	-12
Other insect control	136	134	130	-4
Blister rust control	233	264	150	-14
Oak wilt control	70	52	- 1/	-52
Dwarf mistletoe control	202	24	- 1/	-24
Other disease control	75	50	50	-
Total	17,432	11,462	11,579	+117

1/ These funds have been transferred to technical assistance, training, impact, detection and evaluation to further emphasize field programs.

Insect and disease control scientists serve to protect the environment by carefully evaluating and weighing the adverse effects of unchecked pest outbreaks against the benefits which might result from prescribed control treatments. As part of their overall responsibilities, pest management personnel attempt to keep all environmental impacts, both beneficial and adverse, in proper perspective and recommend only those courses of action that will provide the greatest benefits to the American people.

Examples of Recent Accomplishments

Cooperation with States. In fiscal year 1974, 40 States participated in the Cooperative Pest Action Program and it is expected that 2 to 4 more States will participate in fiscal year 1975. Fiscal year 1974 suppression project cost-sharing with the States led to approximately 5.7 million Federal dollars moving directly and 2 million Federal dollars moving indirectly into the State forest pest management program.

Bark beetles. Suppression of various bark beetle outbreaks involved treatment of numerous individual spot infestations in the West and South. The massive Southern pine beetle epidemic now underway is being vigorously attacked on many fronts. Although direct chemical treatment was necessary in some places, greater advantage than in any previous year, was taken to utilize salvage logging as a means of removing beetle infested trees from the woods before the insects were able to emerge and kill additional trees. Last year approximately 35.6 million board feet and 683.8 thousand cords of beetle infested timber were salvaged from forests in the South.

Spruce budworm in Maine. Some three million acres of spruce-fir type in Maine were infested by spruce budworm. Zectran was used in a cooperative suppression effort with the State of Maine to treat 430,000 acres where high damage was imminent, if the infestation was allowed to go unchecked. The overall reduction in budworm population in the treated area was accomplished.

The current outlook is that spruce budworm outbreaks are extremely high, nationwide. In Eastern North America, some 124 million acres are infested, 5.3 million acres of which are located in Maine. Outbreaks are underway in the Western United States on about 5 million acres. A 3 to 3.5 million acre suppression project is being considered in Maine. Suppression plans for other areas in the United States are questionable at this time.

Douglas-fir tussock moth. About 435,000 acres were treated in Oregon, Washington, and Idaho in 1974. The effort was considered successful and additional suppression projects are not currently anticipated against the moth in these States.

Cooperative gypsy moth suppression. Some 259,634 acres were cooperatively treated in New Jersey, New York, Pennsylvania, and Rhode Island. Treatments were successful in protecting the current year's foliage. Significance of any long-term benefits must await further evaluation. No new defoliation was reported in Delaware, Maryland, Virginia, or West Virginia. Outbreaks in the Northeast were down significantly in 1974. A total of 750,905 acres were defoliated to some degree in 1974 compared to 1,773,846 acres in 1973, biggest drop was in Pennsylvania, New Jersey and New York.

Air pollution. The impact of air pollutants on forest resources continue to increase in importance annually. Current impact studies show substantial mortality and growth loss has occurred to forest vegetation. In addition, injury to wildlife populations has resulted in areas subject to fluoride emissions. Pollutants identified as damaging agents to all forest resources include fluorides, sulfur dioxide, and ozone. Studies are continuing to better define the total impact of pollutants on all forest resources.

Progeny testing for fusiform rust resistance. With the development of a successful method and evaluation procedure, the progeny testing program for determining the susceptibility of slash and loblolly pine seed lots to fusiform rust is operational. Approximately 600 seed lots have been screened against several isolates of the rust fungus from various geographic locations in the South. Nursery producers' interest in the program continues to grow as evidence indicates the losses from this disease will be drastically reduced. It is anticipated that the full capacity of testing 2,500 seed lots annually in the present facilities will be reached in a few years. Additional procedures are being developed for other disease problems that have promise for a similar program.

GEOGRAPHIC BREAKDOWN OF PROGRAM LEVEL--in thousands

	1974	1975 estimate	1976 estimate	Change
Alabama	\$664	\$627	\$438	-\$189
Alaska	105	164	168	4
Arizona	191	166	167	1
Arkansas	189	77	78	1
California	1,046	1,043	1,031	-12
Colorado	480	827	780	-47
Connecticut	-	21	21	-
Delaware	1	6	6	-
District of Columbia	436	204	211	7
Florida	167	45	45	-
Georgia	260	401	405	4
Hawaii	9	20	21	1
Idaho	1,118	1,270	671	-599
Illinois	10	8	8	-
Indiana	21	8	8	-
Iowa	4	7	7	-
Kansas	8	6	6	-
Kentucky	154	56	57	1
Louisiana	262	484	460	-24
Maine	1,080	650	625	-25
Maryland	2	135	136	1
Massachusetts	2	20	21	1
Michigan	76	135	136	1
Minnesota	103	120	120	-
Mississippi	256	168	136	-32
Missouri	64	93	94	1
Montana	553	829	691	-138
Nebraska	10	8	8	-
Nevada	26	30	31	1
New Hampshire	69	103	104	1
New Jersey	351	208	209	1
New Mexico	186	324	279	-45
New York	366	220	221	1
North Carolina	318	324	297	-27
North Dakota	1	-	-	-
Ohio	26	57	57	-
Oklahoma	131	7	7	-
Oregon	2,232	882	601	-281
Pennsylvania	692	345	261	-84
Rhode Island	228	135	136	1
South Carolina	216	166	129	-37
South Dakota	433	512	313	-199
Tennessee	154	160	156	-4
Texas	368	513	461	-52
Utah	125	84	90	6
Vermont	32	77	78	1
Virginia	205	594	565	-29
Washington	1,106	1,034	438	-596
West Virginia	145	190	191	1
Wisconsin	127	197	198	1
Wyoming	181	301	202	-99
Total	14,989	14,061	11,579	-2,482

COOPERATIVE LAW ENFORCEMENT

Project (11)

Permanent
full-time
positions

1974	\$2,582,000	35
1975	1,632,000	45
1976	3,936,000	45
Change	<u>+2,304,000</u>	<u>- -</u>

An increase of \$2,304,000 is proposed as follows:

- (1) To provide sufficient funds to meet contract commitments, \$2,257,000.
- (2) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$34,000.
- (3) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$13,000.

No change in permanent full-time positions is proposed.

Fiscal year 1976 funds, compared with 1974 and 1975, follow:

	<u>FY 1974</u>	<u>FY 1975</u> <u>Estimate</u>	<u>FY 1976</u> <u>Estimate</u>	<u>Change</u>
		(in thousands)		
Program level	\$2,795	\$4,427	\$3,936	-\$491
Unobligated balance brought forward ..	-3,008	-2,795	- -	2,795
Unobligated balance carried forward ..	<u>2,795</u>	<u>- -</u>	<u>- -</u>	<u>- -</u>
Appropriation (budget authority)	2,582	1,632	3,936	2,304

Public Law 92-82 (August 10, 1971) authorized the Secretary of Agriculture to cooperate with any State or political subdivision thereof in the enforcement of State or local laws on lands of the National Forest System. Such cooperation includes reimbursement to a State or its subdivision for expenditures incurred in connection with activities on National Forest System lands.

State and local laws and ordinances are applicable on National Forest System lands with few exceptions. The Forest Service must look to State and local law enforcement officials to enforce these laws and ordinances on the National Forests. State and local law enforcement agencies will continue to perform, on a nonreimbursable basis, their normal law enforcement duties without cost to the Federal Government. This program provides for the negotiation of law enforcement agreements between the local law enforcement agencies and the Forest Service to handle abnormal impacts caused by public use of the National Forest.

As of June 30, 1974, there were approximately 300 agreements in operation. It is expected that this number will increase to 371 in fiscal year 1976. 741 counties in 43 States are eligible to participate in this program.

It is proposed that a level program be maintained as these small cooperating agencies generally must increase their staff and invest in added equipment to provide service under the agreement. They need a commitment that there will be reasonable continuity in program financing from year to year.

GEOGRAPHIC BREAKDOWN OF PROGRAM LEVEL

Cooperative Law Enforcement

	<u>FY 1975</u> <u>estimate</u>	<u>FY 1976</u> <u>estimate</u> (in thousands)	<u>Change</u>
Alabama	\$24	\$21	-\$3
Alaska	49	44	-5
Arizona	223	199	-24
Arkansas	54	48	-6
California	962	855	-107
Colorado	61	54	-7
District of Columbia	66	59	-7
Florida	60	53	-7
Georgia	33	29	-4
Idaho	250	223	-27
Illinois	34	30	-4
Indiana	14	12	-2
Kentucky	22	20	-2
Louisiana	21	18	-3
Maine	8	7	-1
Michigan	64	57	-7
Minnesota	48	43	-5
Mississippi	29	26	-3
Missouri	79	70	-9
Montana	398	354	-44
Nevada	79	70	-9
New Hampshire	62	55	-7
New Mexico	228	203	-25
North Carolina	58	51	-7
Ohio	13	12	-1
Oklahoma	4	3	-1
Oregon	387	344	-43
Pennsylvania	43	38	-5
Puerto Rico	20	18	-2
South Carolina	19	17	-2
South Dakota	73	65	-8
Tennessee	46	41	-5
Texas	20	18	-2
Utah	279	248	-31
Vermont	53	47	-6
Virginia	62	55	-7
Washington	371	330	-41
West Virginia	11	10	-1
Wisconsin	23	20	-3
Wyoming	77	69	-8
Total	<u>4,427</u>	<u>3,936</u>	<u>-491</u>

STANDARD FORM 304
May 1969, Bureau of the Budget
Circular No. A-11, Revised.
304-103

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST PROTECTION AND UTILIZATION
Forest Land Management
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 74 actual	1975 estimate	19 76 estimate
05-96-1100-0-1-302			
FOREST SERVICE--Direct obligations:			
Personnel compensation:			
11.1 Permanent positions.....	124,415	129,742	139,680
11.3 Positions other than permanent.....	59,468	43,212	45,245
11.5 Other personnel compensation.....	30,873	2,434	2,545
11.8 Special personal services payments.....	9,038	.....	.....
Total personnel compensation.....	223,794	175,388	187,470
Personnel benefits:			
12.1 Civilian.....	21,888	18,368	19,088
13.0 Benefits for former personnel.....	87	57	55
21.0 Travel and transportation of persons.....	13,811	8,186	13,475
22.0 Transportation of things.....	13,488	12,464	13,030
23.0 Rent, communications, and utilities.....	10,359	12,968	13,665
24.0 Printing and reproduction.....	2,402	1,618	1,530
25.0 Other services.....	56,482	43,484	46,659
26.0 Supplies and materials.....	28,097	23,241	26,627
31.0 Equipment.....	8,356	6,351	6,745
32.0 Lands and structures.....	3,870	2,769	5,155
33.0 Investments and loans.....			
41.0 Grants, subsidies, and contributions.....	4,000	5,756	5,756
42.0 Insurance claims and indemnities.....	143	67	70
43.0 Interest and dividends.....			
44.0 Refunds.....	37	.....	5
Subtotal direct obligations ...	386,814	310,717	339,330
95.0 Quarters and subsistence charges direct	-1,571	-1,544	-1,549
99.0 Total obligations.....	385,243	309,173	337,781

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DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST PROTECTION AND UTILIZATION
Forest Land Management
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 74 actual	1975 estimate	19 76 estimate
05-96-1100-0-1-302			
FOREST SERVICE--Reimbursable obligations:			
Personnel compensation:			
11.1 Permanent positions.....	1,585	1,438	1,438
11.3 Positions other than permanent.....	676	502	502
11.5 Other personnel compensation.....	1,011	567	567
11.8 Special personal services payments.....	821	315	315
Total personnel compensation.....	4,093	2,822	2,822
Personnel benefits:			
12.1 Civilian	236	205	205
13.0 Benefits for former personnel.....			
21.0 Travel and transportation of persons.....	276	134	134
22.0 Transportation of things	147	80	80
23.0 Rent, communications, and utilities.....	220	204	204
24.0 Printing and reproduction	8	8	8
25.0 Other services	5,889	2,715	2,709
26.0 Supplies and materials.....	1,406	757	757
31.0 Equipment	56	56	56
32.0 Lands and structures.....	77	105	105
33.0 Investments and loans.....			
41.0 Grants, subsidies, and contributions.....			
42.0 Insurance claims and indemnities.....	11	2	8
43.0 Interest and dividends.....			
44.0 Refunds.....			
Subtotal reimbursable obligations.....	12,419	7,088	7,088
95.0 Quarters and subsistence charges.....	-14	-8	-8
reimbursable			
99.0 Total obligations.....	12,405	7,080	7,080
Total obligations, Forest Service.....	397,648	316,253	344,861

STANDARD FORM 304
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304-103

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST PROTECTION AND UTILIZATION
Forest Land Management
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 74 actual	1975 estimate	19 76 estimate
05-96-1100-0-1-302			
ALLOCATION ACCOUNTS			
Personnel compensation:			
11.1 Permanent positions	146	333	327
11.3 Positions other than permanent	232	373	361
11.5 Other personnel compensation	4	2	2
11.6 Special personal services payments			
Total personnel compensation	382	708	690
Personnel benefits:			
12.1 Civilian	33	45	44
13.0 Benefits for former personnel			
21.0 Travel and transportation of persons	79	108	96
22.0 Transportation of things	24	41	40
23.0 Rent, communications, and utilities	3	4	5
24.0 Printing and reproduction			
25.0 Other services	191	324	282
26.0 Supplies and materials	30	41	40
31.0 Equipment	22	18	19
32.0 Lands and structures			
35.0 Investments and loans			
41.0 Grants, subsidies, and contributions			
42.0 Insurance claims and indemnities			
43.0 Interest and dividends			
44.0 Refunds			
Total obligations, allocation accounts (Department of the Interior)	764	1,289	1,216
99.0 Total obligations	398,412	317,542	346,077

FOREST PROTECTION AND UTILIZATION

Proposed Change in Language

Change in language is proposed as follows. Deleted matter is enclosed in brackets.

For expenses necessary for forest protection and utilization, as follows:

Forest land management: For necessary expenses fighting and preventing forest fires on or threatening such lands [and emergency rehabilitation] and for liquidation fighting and preventing forest fires [and for the emergency rehabilitation of burned-over lands under its jurisdiction] and \$1,910,000 for insect and disease

This change would eliminate the advance authorization for emergency fire rehabilitation. A joint study is being conducted by the Forest Service and the Bureau of Land Management which will identify the problems and opportunities, the expected results, and the benefits and costs of rehabilitation efforts. We propose to eliminate this language pending the completion of the study.

FOREST SERVICE

FOREST PROTECTION AND UTILIZATION -- FOREST LAND MANAGEMENT

Analysis by Activities Budget Authority -- in thousands

Activity	:FY 1976 :7/1-9/30/76	
	:Estimate:	Estimate
Forest land management:		
Sales administration and management	\$98,124	\$34,332
Reforestation and stand improvement	46,686	10,372
Recreation use	51,130	24,484
Wildlife and fish habitat management	11,360	3,109
Rangeland management	17,732	5,188
Soil and water management	17,119	5,162
Minerals management	6,943	2,081
Forest fire protection	37,904	12,239
General land management activities:		
Special uses--non-recreation	5,610	1,052
Land classification, adjustments, and surveys	11,840	1,898
Maintenance of improvements for fire and general purposes (including communications)	10,728	3,058
Payments to Employees' Compensation Fund	3,331	- -
Total, Forest protection and management	<u>318,507</u>	<u>102,975</u>
Fighting forest fires	4,275	4,275
Forest insect and disease control	11,579	3,078
Cooperative law enforcement	<u>3,936</u>	<u>1,060</u>
Total, Forest land management	<u>338,297</u>	<u>111,388</u>

（一） 關於我國之經濟狀況

我國之經濟狀況，可分三點說明：

一、農業之生產與分配

我國農業之生產，近年來有顯著之進步。

二、工業之發展與問題

我國工業之發展，近年來有顯著之進步。

三、交通之改善

我國交通之改善，近年來有顯著之進步。

四、教育之普及

我國教育之普及，近年來有顯著之進步。

五、社會之進步

我國社會之進步，近年來有顯著之進步。

六、政治之改革

我國政治之改革，近年來有顯著之進步。

七、文化之復興

我國文化之復興，近年來有顯著之進步。

八、國際地位之提高

我國國際地位之提高，近年來有顯著之進步。

九、民族之團結

我國民族之團結，近年來有顯著之進步。

十、生活之改善

我國生活之改善，近年來有顯著之進步。

FOREST SERVICE

FOREST PROTECTION AND UTILIZATION

For expenses necessary for forest protection and utilization, as follows:

Forest land management: For necessary expenses of the Forest Service, not otherwise provided for, including the administration, improvement, development, and management of lands, waters, or interests therein, under Forest Service administration, fighting and preventing forest fires on or threatening such lands [and emergency rehabilitation] and for liquidation of obligations incurred in the preceding fiscal year for such purposes, control of white pine blister rust and other forest diseases and insects on Federal and non-Federal lands, implementation of forest advanced logging and conservation systems including necessary research and development related thereto, **[\$306,119,000]** **\$348,297,000**, of which \$4,275,000 for fighting and preventing forest fires [and for the emergency rehabilitation of burned-over lands under its jurisdiction] and \$1,910,000 for insect and disease control shall be apportioned for use, pursuant to section 3679 of the Revised Statutes, as amended, to the extent necessary under the then existing conditions: *Provided*, That funds appropriated for "Cooperative range improvements", pursuant to section 12 of the Act of April 24, 1950 (16 U.S.C. 580h), may be advanced to this appropriation. *Provided further*, That funds appropriated for the cooperative law enforcement program shall remain available until expended.

Forest research: For forest research at forest and range experiment stations, the Forest Products Laboratory, or elsewhere, as authorized by law, **[\$75,402,000]** **\$79,211,000**.

State and private forestry cooperation: For cooperation with States in forest-fire prevention and suppression, in forest tree planting on non-Federal public and private lands, and in forest management and processing, and for advising timberland owners, associations, wood-using industries, and others in the application for forest management principles and processing of forest products, as authorized by law, **[\$34,638,000]** **\$30,222,000**.

For "Forest protection and utilization" for the period July 1, 1976, through September 30, 1976, as follows: "Forest land management", \$111,388,000, of which \$1,060,000 for cooperative law enforcement shall remain available until expended; "Forest research", \$21,550,000; and "State and private forestry cooperation", \$9,202,000. (7 U.S.C. 1010-1012, 1621-1627, 2201, 2202, 2250; 16 U.S.C. 207c, 471-583i, 594-1-594-5, 594a, 1004, 1005; 30 U.S.C. 601-604, 611-615; 31 U.S.C. 584; 42 U.S.C. 1891-1893; 43 U.S.C. 1181h-1181j; 36 Stat. 557-579; 67 Stat. 638; 86 Stat. 657; Department of the Interior and Related Agencies Appropriation Act, 1975.)

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST PROTECTION AND UTILIZATION

Program and Financing (in thousands of dollars)

Identification code	R REVENUE	R REVENUE	R REVENUE
05-96-1100-0-1-302	7/1-9/30/76		
<u>Program by activities:</u>			
Direct program			
1. Forest land management:			
(a) National Forest protection and management	102,975		
(b) Fighting forest fires ..	4,275		
(c) Forest insect and disease control	3,078		
(d) Cooperative law enforcement	1,060		
Total forest land management	111,388		
2. Forest research:			
(a) Forest and range management	9,885		
(b) Forest protection	5,912		
(c) Forest products and engineering	3,184		
(d) Forest resource economics	2,569		
Total forest research	21,550		
3. State and private forestry cooperation:			
(a) Forest fire control	7,014		
(b) Forest tree planting ...	50		
(c) Forest management and processing	608		
(d) General forestry assistance	1,530		
Total State and private forestry cooperation	9,202		
Total direct program	142,140		
Total reimbursable program	500		
Total program costs, funded 1/ ...	142,640		
10 Total obligations	142,640		
(Mono cast: 21.5)	(Mono cast: 5)	(Mono cast: 5)	(Mono cast: 4.9)

FOREST SERVICE

FOREST PROTECTION AND UTILIZATION -- FOREST LAND MANAGEMENT

Justification for Transition Period July 1-September 30, 1976

The percent of the estimates for each activity requested varies from a low of 19 (general land management activities) to a second high of 48 (recreation use) and high of 100 (fighting forest fires). The levels of funding proposed for each activity for the transition period are not pro rata of the 1976 request because of the seasonal workload in the Forest Service.

The program level for the transition period for the following activities represents the continuation of programs at the fiscal year 1976 level. The relationship of the obligations and outlays for the period July 1 through September 30, 1974, to the total fiscal year 1975 program was used as a basis for determining the obligations and outlays for the transition period. The current rates were applied to the fiscal year 1976 program with adjustments to recognize the unusually high firefighting costs incurred during the summer of 1974.

	Amount Requested (in thousands)	Percent of FY 1976 Program
<u>Sales administration and management</u>	<u>\$34,332</u>	<u>35</u>

The following program is proposed with requested funds (in thousands):

Sale preparation	\$15,420
Harvest administration	<u>15,235</u>
Subtotal, preparation and harvest	30,655
Enforcement of Log Export Act and sub- stitutions	185
Timber inventory and stand management control	1,540
Silviculture examination	<u>1,952</u>
Total	<u>34,332</u>

Sale preparation:

Million board feet (local scale)	3,100
Cost per thousand board feet	\$4.97
Total cost (in thousands)	\$15,420

Harvest administration:

Expected harvest level in million board feet (local scale)	3,500
Total cost (in thousands)	\$15,235

<u>Reforestation and stand improvement</u>	<u>\$10,372</u>	<u>22</u>
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The following program is proposed with requested funds (dollars in thousands):

Reforestation	\$4,042	9,900 acres
Timber stand improvement	4,980	26,100 acres
Genetic tree improvement	1,040	1,631 acres of seed orchards
Nursery operation and development	310	11 nurseries
Total	<u>10,372</u>	

<u>Recreation use</u>	<u>\$24,484</u>	<u>48</u>
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Funds requested will be used as follows (in thousands):

Administration of concessions and recreation use permits	\$835
Operation and maintenance	18,334
Planning and inventories	785
Wilderness administration	1,630
Visitor Information Service	<u>2,900</u>
Total	<u>24,484</u>

	Amount Requested (in thousands)	Percent of FY 1976 Program
<u>Wildlife and fish habitat management</u>	<u>\$3,109</u>	<u>27</u>
It is planned to do the following work with the funds requested:		
Land treated in which wildlife habitat coordination was planned and used (thousand acres)	1,256	
Direct habitat development (thousand acres) .	45	
<u>Rangeland management</u>	<u>\$5,188</u>	<u>29</u>
Following accomplishments are projected toward rangeland management objectives:		
Allotment plans maintained (No.)	7,286	
Allotment plans initiated (No.)	276	
Deteriorated range being treated (thousand acres)	98	
Range revegetation (thousand acres)	20	
Grazing use (thousand animal unit months) ..	4,100	
<u>Soil and water management</u>	<u>\$5,162</u>	<u>30</u>
Program proposed follows:		
Environmental quality protection (thousand acres)	1,260	
Water quality improvement (thousand acre- feet)	378	
Reduction of human and economic toll of floods and land disturbance (thousand tons)	37	
Forest-related resource analysis (thousand acres)	18,576	
Added water for area and community develop- ment (thousand acre-feet)	11	
<u>Minerals management</u>	<u>\$2,081</u>	<u>30</u>
Program targets planned for the transition period follows:		
Mining claims (No.)	8,850	
Mining law compliance (No.)	1,350	
Mineral leases (No.)	3,600	
Mineral withdrawal and mineral character determination (thousand acres)	200	
Mineral material disposals	795	
Exercised mineral reservations and rights outstanding	300	
<u>Forest fire protection</u>	<u>\$12,239</u>	<u>32</u>
The proposed request will be used to finance protection measures approximately as follows (in thousands):		
Fire prevention	\$2,572	
Fire detection	1,053	
Fire attack forces	5,489	
Air operations	1,945	
Fuel modification	1,050	
Equipment development and testing	130	
Total	12,239	

	Amount Requested (in thousands)	Percent of FY 1976 Program
General land management activities	\$6,008	19

Program proposed for the transition period follows (in thousands):

Land classification	\$220
Land exchange	665
Land status records and cadastral engineering (land line location)	793
Geometronics	220
Maintenance of improvements for fire and general purposes (including communications)	3,058
Special uses--non-recreation	1,052
Total	6,008

Land classification Financing at this level will enable work of a multi-year nature, begun prior to or during fiscal year 1976, to be continued toward timely completion. It will also enable field work to be done during the transition period which is essential to the urgent classification work planned for the non-field season immediately following in fiscal year 1977. Much of the work required is unpredictable as to time and place but is of a non-deferrable nature when it arises. Examples are: Investigation of claims by Indians against National Forest lands; analyses for reports to Congress on legislation for boundary changes for establishment of National Recreation Areas or for other special areas; and consideration of critically needed land ownership adjustments.

Land exchange. Selected examples of estimated cost avoidance which will result during the next ten years from the July 1-September 30, 1976, exchange program, are:

Reductions	Units	Amounts (in thousands)
Property lines and corners ..	100 miles	\$110
Road construction and maintenance	8 miles	400
Use permits and occupancy trespass	30 cases	120
Road right-of-way needs	20 cases	12
Total		642

Cadastral surveys. Work proposed for the transition period:

Corners (No.)	Boundaries (miles)
Search	Locate and mark:
Remonument	To full standard ..
Establish	To partial standard
Maintenance	Maintenance

Geometronics. Funds requested will be used to continue work during the transition period which is essential to multiple use planning, to develop new geometronic process, and display techniques.

Maintenance of improvements for fire and general purposes (including communications). Funds requested will be used for maintenance and for minor betterment, minor construction or replacement of buildings, utilities, pollution abatement facilities, airfields, communications systems and related structures throughout the National Forests and National Grasslands.

Special uses--non-recreation. Funds will be used during the transition period to review applications, issue and administer special use permits for a variety of uses which support development and utilization of energy resources, economic development of rural areas and provide a land base on utilities and communications.

<u>Fighting forest fires</u>	<u>\$4,275</u>	<u>100</u>
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Funds will be used to suppress forest fires on or threatening National Forests and Grasslands which cannot be handled by the regular forest fire protection program. The full amount of the annual appropriation is requested for the transition period. During the past five years the following obligations were incurred in the period July 1 through September 30 (in millions):

1970	\$17.7
1971	48.3
1972	30.8
1973	41.0
1974	50.0

<u>Forest insect and disease control</u>	<u>\$ 3,078</u>	<u>27</u>
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Funds proposed will be used as follows (in thousands):

Technical assistance, training, detection, and evaluation	\$2,020
Bark beetle control	1,058

The work proposed in the transition period is needed to continue the strong effort to hold losses caused by bark beetles to tolerable levels, and to strengthen procedures for making detection surveys and biological evaluations.

<u>Cooperative law enforcement</u>	<u>\$ 1,060</u>	<u>27</u>
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In order to meet contract commitments with State and local law enforcement officials, these funds are needed to maintain a reasonable continuity in program financing from year to year.

<u>Total, Forest land management</u>	<u>\$111,388</u>	<u>33</u>
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GEOGRAPHIC BREAKDOWN OF APPROPRIATION
Forest Research

<u>State</u>	<u>Headquarters or Project Location</u>	<u>FY 1975 estimate</u>	<u>FY 1976 estimate</u>	<u>Change</u>
		(in thousands)		
Alabama	Auburn	\$390	\$395	+\$5
Alaska	Fairbanks	641	446	-195
	Juneau	836	657	-179
Arizona	Flagstaff	863	871	+8
	Tempe	904	913	+9
	Tucson	294	549	+255
Arkansas	Fayetteville	243	246	+3
California	Arcata	284	287	+3
	Berkeley	3,118	3,190	+72
	Fresno	437	458	+21
	Redding	196	199	+3
	Riverside	2,810	2,839	+29
Colorado	Fort Collins	2,371	2,299	-72
Connecticut	Hamden	1,068	1,090	+22
District of Columbia	Washington	200	829	+629
Florida	Lehigh Acres	174	181	+7
	Marianna	215	219	+4
	Olustee	790	803	+13
Georgia	Athens	1,716	1,746	+30
	Macon	1,295	1,309	+14
Hawaii	Honolulu	561	677	+116
Idaho	Boise	577	483	-94
	Moscow	1,205	1,226	+21
Illinois	Carbondale	948	961	+13
Kentucky	Berea	891	902	+11
Louisiana	Pineville	3,345	3,388	+43
	New Orleans	966	1,115	+149
Maine	Orono	322	326	+4
Maryland	Beltsville	307	311	+4
	Hyattsville	1,212	1,217	+5
Massachusetts	Amherst	414	430	+16
Michigan	East Lansing (including Cadillac)	727	735	+8
	Houghton	469	472	+3
	Marquette	377	281	-96
Minnesota	Duluth	355	361	+6
	Grand Rapids	340	344	+4
	St. Paul	1,518	1,707	+189
Mississippi	Gulfport	1,586	1,615	+29
	Oxford	338	341	+3
	State College	255	257	+2
	Stoneville	951	865	-86
Missouri	Columbia	290	295	+5

GEOGRAPHIC BREAKDOWN OF APPROPRIATION

Forest Research -- continued

State	Headquarters or Project Location	FY 1975 estimate	FY 1976 estimate	Change
		(in thousands)		
Montana	Bozeman	\$482	\$487	+\$5
	Missoula	3,417	3,467	+50
	Billings	1,749	1,775	+26
Nebraska	Lincoln	258	263	+5
Nevada	Reno	315	- -	-315
New Hampshire	Durham	1,022	939	-83
New Jersey	Pennington	389	392	+3
New Mexico	Albuquerque	202	204	+2
New York	Syracuse	382	90	-292
North Carolina	Asheville	1,042	1,173	+131
	Franklin	345	297	-48
	Research Triangle (Raleigh-Durham)	869	885	+16
North Dakota	Bottineau	259	263	+4
Ohio	Delaware (including Columbus)	1,849	1,879	+30
Oregon	Bend	329	334	+5
	Corvallis	4,136	4,189	+53
	LaGrande	606	556	-50
	Portland	1,785	1,952	+167
Pennsylvania	Upper Darby	665	771	+106
	Warren	426	432	+6
	Scranton	300	- -	-300
Puerto Rico	Rio Piedras	390	496	+106
South Carolina	Charleston	328	333	+5
	Clemson	117	425	+308
South Dakota	Rapid City	366	371	+5
Tennessee	Sewanee	237	240	+3
Texas	Nacogdoches	340	346	+6
Utah	Logan	546	552	+6
	Ogden	622	779	+157
	Provo	690	603	-87
Vermont	Burlington	520	528	+8
Washington	Olympia	512	418	-94
	Seattle	670	690	+20
	Wenatchee	664	367	-297
West Virginia	Morgantown	425	431	+6
	Parsons	381	385	+4
	Princeton	1,270	1,287	+17
Wisconsin	LaCrosse	118	119	+1
	Madison	7,840	8,769	+929
	Rhineland	1,199	1,125	-74
Wyoming	Laramie	246	249	+3
Total		75,107	76,696	+1,589
Allocations to other agencies:				
	Agricultural Research Service	470	470	- -
	Animal and Plant Health Inspection Service	730	740	+10
	Cooperative State Research Service	1,305	1,305	- -
Totals		77,612	79,211	+1,599

TREES AND TIMBER MANAGEMENT RESEARCH

		Permanent full-time positions
1974	\$13,087,000	623
1975	14,535,000	652
1976	14,451,000	649
Change	<u>-84,000</u>	<u>-3</u>

A net decrease of \$84,000 is proposed as follows:

- (1) Increase of \$167,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.
- (2) Increase of \$36,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.
- (3) Decrease of \$287,000 due to discontinuance of research in which there was a minimum of funds invested in order to finance research requirements under new legislation.

A decrease of 3 permanent full-time positions is also proposed.

Timber management research develops scientific knowledge of forest ecosystems with trees as a principal component and develops methods for culture of trees and management of forests for production of timber and for modification and improvement of man's environment. This includes:

- (1) Development of cultural methods for timber and timber-related crops.
- (2) Techniques of timber measurement.
- (3) Techniques of forest management planning.
- (4) Techniques for environmental tree culture.
- (5) Research in forest genetics.

The core of this research is determining the proper culture for over a hundred different commercial timber species based on a thorough knowledge of their ecology and growth requirements. This research determines how the Nation's needs for timber and other forest benefits can be met on Federal, State, and private lands through measures such as brush control, forest establishment, protection from animals, stand culture, soil and site improvement, and reestablishment of tree species valuable for timber or environmental purposes.

Research is being accelerated on intensive culture of important timber types to help meet the Nation's growing needs for domestic forest products.

Timber management research also provides forest managers with reliable information on growth and yield of forests and on the influence of cultural practices on yield and quality of the stand.

This program includes research on methods of producing timber-related forest crops such as gum naval stores, maple sap, Christmas trees, and other income-producing natural products from forests.

Forest genetics research includes scientific study of variation and inheritance in trees and development of techniques for producing strains or hybrids which are superior in growth rate, wood quality, resistance to insects, diseases, and other damaging factors, or special value for use in environmental improvement.

Examples of Recent Accomplishments

Intensive timber culture shows increasing promise of accelerating the growth of trees throughout the United States. More intensive forest management will be necessary if future demands for pulpwood, construction lumber, and fine hardwoods are to be met. Fertilizing diverse species such as black cherry in Pennsylvania, Douglas-fir in Oregon and Washington, and Southern pine in Louisiana and Florida

increased tree growth by as much as 145 cubic feet per acre per year. Fertilization plus cultivation and/or irrigation increased growth up to 16-fold in Southern pine plantations of Mississippi and Florida. These specific research results, combined with three key summary publications which give specific fertilizer prescriptions for several forest types, provide land managers with valuable aids for planning operational forest fertilization programs.

A new guide for black walnut culture. A black walnut symposium held at Carbondale, Illinois, attracted over 300 participants to discuss recent research progress and recommendations for efficient use of walnut resources. Symposium proceedings are now being used as a guide by those interested in growing black walnut as a crop tree.

New management guide for northeastern and western spruce-fir stands. A new cultural and regeneration guide has been developed for balsam fir, and black, red, and white spruce stands in the Northeast. Included are specific treatments for different management objectives. New guidelines are also available to aid forest managers in the Rocky Mountain region in developing cutting practices needed to convert old-growth Engelmann spruce, subalpine fir forests, into managed stands, while maintaining continuous forest cover in travel influence zones and areas of high recreational value or outstanding scenic beauty. The cutting practices recommended, some of which involve making small cleared openings, can be used to create stands favorable to increased water yields, improved wildlife habitat, and integrated timber production with other uses.

Disease resistant white pine developed for the Northwest. The most serious pest of western white pine in the Northwest is white pine blister rust. A breeding program for improved disease resistance based on more than 20 years of intensive research in Idaho and Washington has recently yielded encouraging results. A group of more than 3,000 second-generation hybrid white pine seedlings, all bred from rust-resistant parents, showed 66 percent resistance to blister rust after 2-1/2 years exposure to infection in the nursery and 88 percent resistance after an additional 2 years exposure in field plantings. In contrast, only 19 and 24 percent of control trees escaped infection. Orchards have been established to produce rust-resistant western white pine sufficient to plant 15,000 to 20,000 acres of mixed conifers per year.

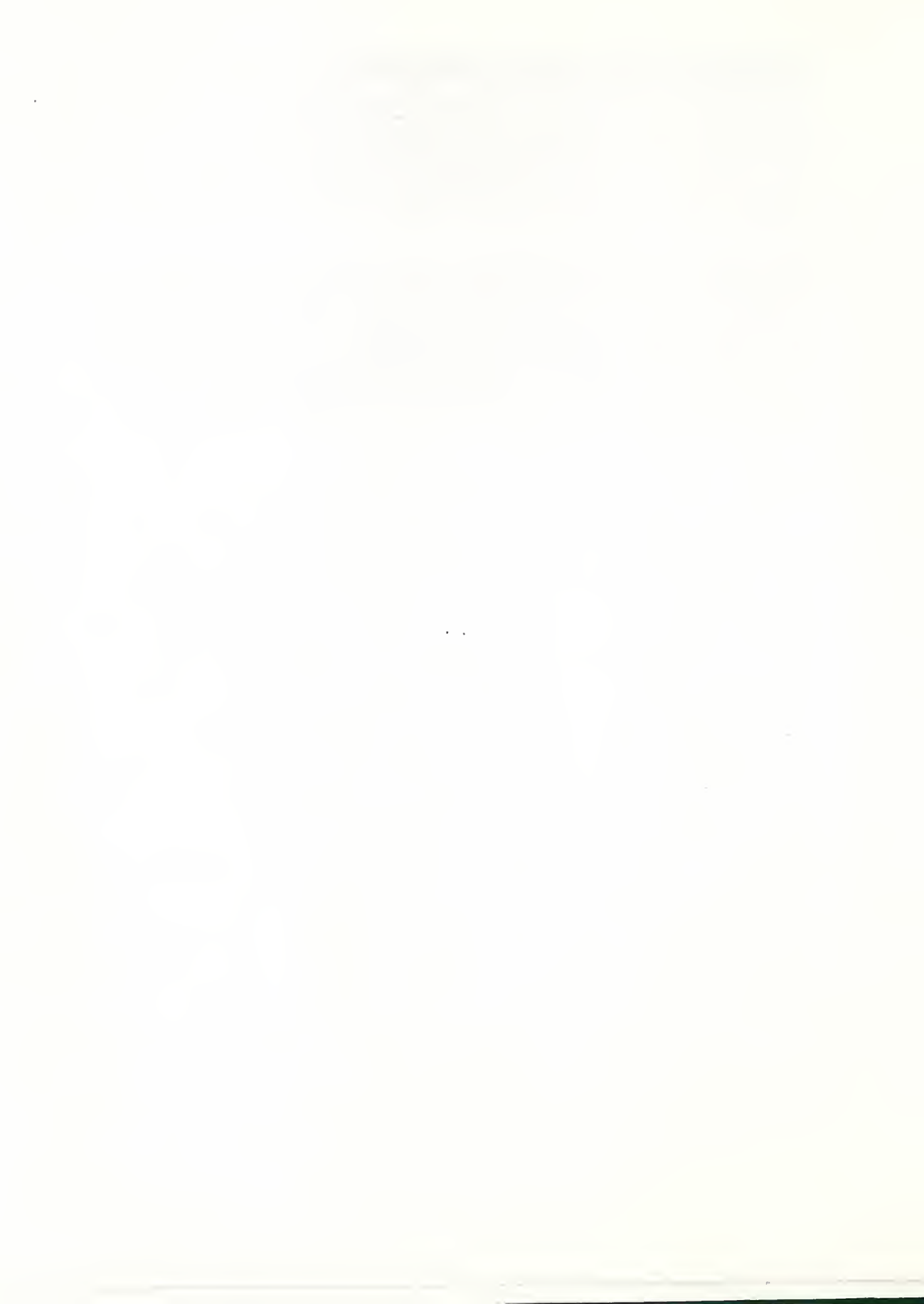
Hardy scotch pine provenances available for planting in Northern Great Plains shelterbelts. A wider variety of pine species is needed for planting in shelterbelts and windbreaks and for Christmas tree culture in the Northern Great Plains to meet the different requirements of the region. In the search for new species, a large collection of scotch pine from sources in Eastern Europe and across Russia have been tested for 10 years at three locations in North Dakota and one in eastern Nebraska. Trees from western Poland and Southeastern Russia gave the best overall performance. Trees from these sources are now recommended for Northern Great Plains plantings.

New management guide for sand pine on problem sites in the Southeast. A handbook has been developed to aid in planting sand pine on several million acres of droughty southeastern soils. This handbook synthesizes research information on the distribution, wood properties, seed development, nursery practices, site characteristics, planting, and management of two varieties of sand pine. It provides land managers in Florida, Georgia, South Carolina, and North Carolina with multiple use options to improve productivity of dry sandhill areas.

Better pine seed sources identified for the South. The importance of selecting proper seed sources for outplantings has been demonstrated at several locations in the South. In Arkansas, trees from 34 of 36 selected loblolly pine seed sources grew faster than local trees. Trees from a selected South Carolina source produced 30 percent more wood volume than local trees with only a slight loss in resistance to fusiform rust. In Mississippi, large differences in growth rate were evident among shortleaf pine trees from different geographic sources. This genetic variation associated with geographic seed sources other than the local source can be used to increase volume growth in Southern pine plantations.

Pine hybrids developed in cooperative PL 480 research. By selective tree breeding, it is possible to produce hybrid forest trees which grow fast and are resistant to insects, diseases, and drought. In order to accomplish these goals, the PL 480 program supported 7 years of research in Greece to learn how to make very difficult crosses among important pine species of the Mediterranean region and among exotic species. By carefully selecting certain pine races and by treating pollen with x-rays, several possible rare pine hybrids (e.g., scotch pine x red pine, Haldreich pine x red pine) were obtained. This information, especially the identification of compatible races, can be directly applied in accelerating the U. S. pine hybridization program.

Woody plant seed handbook now available. A major new book on "Seeds of Woody Plants in the United States" was issued by the Forest Service in 1974. This 883-page handbook describes seeds of more than 800 species of trees and shrubs and provides directions for fruit collection, seed storage, and nursery practices. Collaborating in preparation of the volume were over a hundred scientists from the Forest Service, Agricultural Research Service, Soil Conservation Service, and cooperating universities, and State agencies. Chapters on general seed biology, genetic improvement, pollen handling, and seed testing, as well as photographs make this volume an excellent reference and working tool for foresters, wildlife managers, nurserymen, students, and home owners.



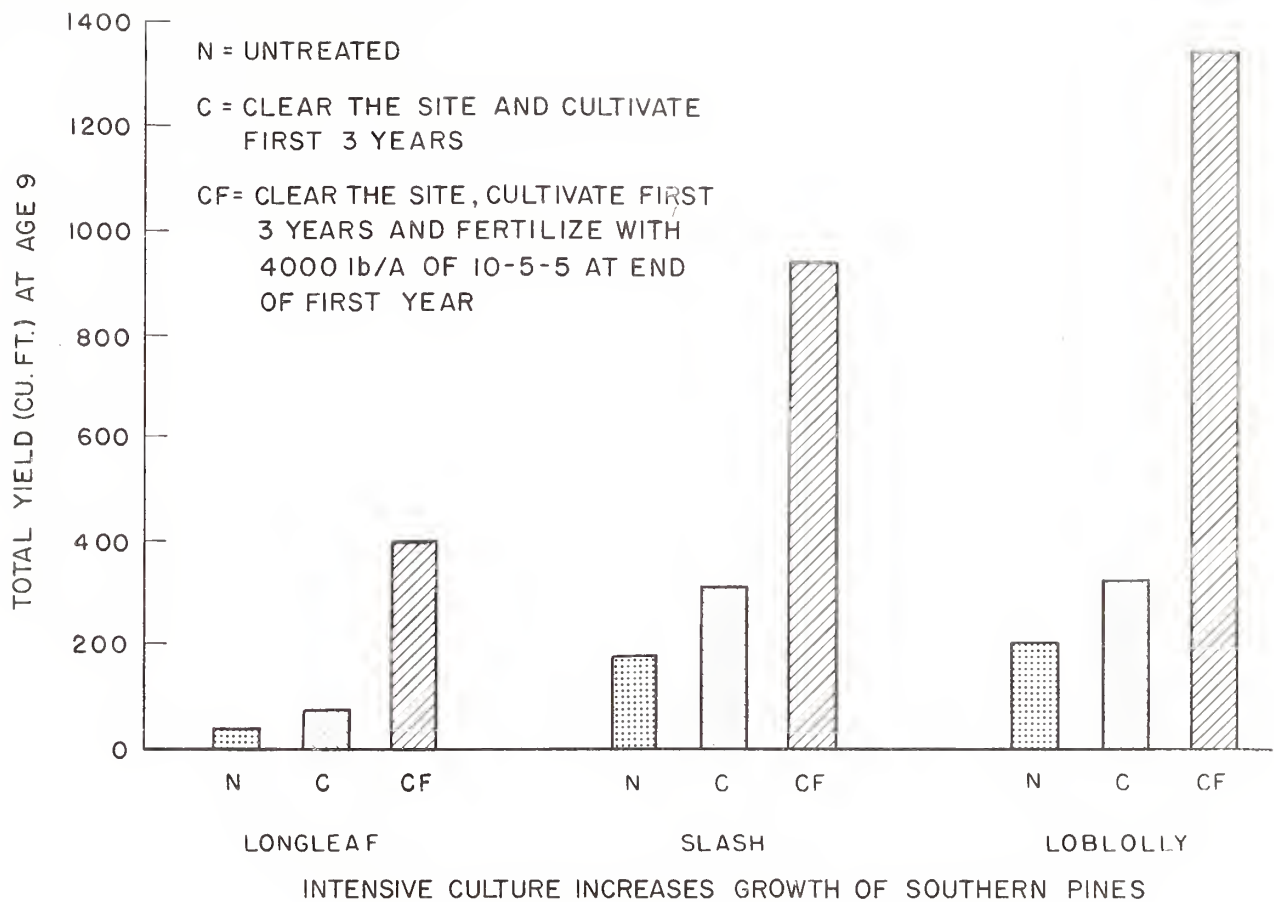


Figure 12



FOREST WATERSHED MANAGEMENT RESEARCH

		Permanent full-time positions
1974	1/ \$7,010,000	283
1975	8,527,000	281
1976	7,282,000	269
Change	<u>-1,245,000</u>	<u>-12</u>

A net decrease of \$1,245,000 is proposed as follows:

- (1) Increase of \$45,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.
- (2) Increase of \$10,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.
- (3) Decrease of \$1,300,000 due to discontinuance of research in which there was a minimum of funds invested in order to finance research requirements under new legislation.

A decrease of 12 permanent full-time positions is also proposed.

Watershed management research is conducted to:

- (1) Develop methods and techniques for managing forest and forest-related watersheds to protect and improve soil and water quality, improve the yield and timing of water flows, and restore and rehabilitate degraded landscapes.
- (2) Develop adequate means of protecting soil and water resources, especially on fragile or unstable soils, while forest and forest-related lands are being managed for other products and services.
- (3) Provide basic knowledge of vegetation, soil, water, and atmospheric relationships in wildland and related forest areas.

Examples of Recent Accomplishments

Virginia pines show promise for revegetating extremely acid mine spoils. Many areas strip-mined for coal have serious revegetation problems. Research evaluated progeny from 10 natural stands of Virginia pine scattered throughout Tennessee and Kentucky. After two growing seasons, survival, total height and second-year growth were significantly better for some progeny indicating potential for breeding to produce new varieties specifically adapted to acidic mine spoils.

Soil ripping is an effective, but temporary, measure to control runoff and erosion on semi-arid watersheds. Ripping (deep plowing) of soil increases soil infiltration rates and normally is effective for 3 to 5 years in reducing erosion and runoff from semi-arid watersheds. Scientists in New Mexico have shown that re-ripping previously treated areas is a low cost way to extend effectiveness of this treatment until vegetation can become established. Soil ripping reduces runoff by about two-thirds compared with untreated areas.

Damage by avalanches can be reduced by predicting avalanche occurrence. In the Front Range of Colorado, 19 weather factors were analyzed to determine their correlation to avalanches. A storm index, based on intensity of precipitation and windspeed, was developed to predict the number of avalanches on 23 paths. The analysis showed that the storm index could be used to predict with 70 to 80 percent accuracy whether a slope will avalanche. Although developed for Colorado, these predictive aids should be adaptable to many mountain areas.

1/ For comparability, \$700,000 is shown under Surface environment and mining rather than under Forest watershed management research as appropriated.

Pennsylvania strip-mine banks. Quick revegetation of strip-mine spoil banks is needed to control erosion and protect watersheds. A study in Pennsylvania indicates that lime is the most essential amendment for establishment of red pine and Japanese larch on anthracite coal-mine spoils. Without lime, natural vegetation, planted trees and shrubs have not survived on these spoils. Mulching improved overall survival, but commercial fertilizers had no effect on survival and only a slight effect on growth.

WILDLIFE, RANGE, AND FISH HABITAT RESEARCH

		<u>Permanent full-time positions</u>
1974	\$4,482,000	158
1975	5,224,000	151
1976	5,196,000	150
Change	<u>-28,000</u>	<u>-1</u>

A net decrease of \$28,000 is proposed as follows:

- (1) An increase of \$911,000 to accelerate research to guide implementation of the Endangered Species Act.
- (2) Increase of \$60,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.
- (3) Increase of \$12,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.
- (4) Decrease of \$1,011,000 is based on the discontinuation of research in which there was a minimum of funds invested in order to finance research requirements under new legislation.

A decrease of one permanent full-time position is also proposed.

The Nation's forests, ranges, and associated waters provide a home for millions of livestock, game animals, and countless numbers of other forms of fish and wildlife. These populations provide recreation, food, fiber, and income for a broad spectrum of the Nation's population. Mammals, birds, and fish vary widely in social and ecological requirements, but the basic ecological processes are common to all species; all are products of the habitat.

Land management decisions must be made with full knowledge of the probable impact upon habitat productivity. Where competitive uses exist and where habitat values are low, more effective management systems are essential for rapid improvement in the years ahead.

Wildlife, range, and fish habitat research is conducted to maintain and increase the diversity and productivity of fish and wildlife, as well as domestic livestock populations by:

- (1) Defining the habitat requirements of the many species of fish, wildlife, and livestock.
- (2) Assessing the impact of alternative land use practices upon habitat values.
- (3) Generating strategies to optimize the habitat values of forests and ranges.

Examples of Recent Accomplishments

Forest resource inventory applied to forage resources for livestock and deer. A pilot test in southwestern Louisiana demonstrated the feasibility of inventorying multiple forest resources. Advantages in programing the forest resource survey as an inventory vehicle include regular measurement intervals that provide precise trend information and an integrated look at forest potentials--timber, range and wildlife habitat. This development will assist in the assessments required in the Forest and Rangeland Renewable Resources Planning Act of 1974 (PL 93-378).

Recreation benefits can be enhanced by management of songbird habitats around camp-grounds. In the Southern Appalachians, density and diversity of breeding birds is related to structure of the vegetation. Density of breeding songbirds can be increased in forest-like recreation areas by opening the tree canopy to encourage shrub growth. To maintain a large number of bird species, however, both conifers and hardwoods should be retained when opening the stands. In park-like recreation areas, shrubs should be maintained or planted in groups rather than as scattered plants.

Logging-fisheries interrelationships in the West are clarified. Relationships between logging and fisheries have been complicated by the lack of readily available summaries of current technical knowledge. To provide managers with this capability:

- (1) An annotated bibliography of 278 publications was developed.
- (2) A state-of-the-art summary was prepared.
- (3) Key gaps in the information base were identified to guide future research.

Elk and campgrounds can be compatible. Research in Wyoming has shown that campgrounds and other recreation facilities should be constructed at least a half-mile from open meadows and slopes where elk prefer to feed. Traffic to and from recreation facilities is less disturbing to elk than the out-of-vehicle activities at campgrounds. Elk frequently feed undisturbed in open parks within 100 yards of road traffic, particularly where parks are shielded from roads by coniferous forest.



FOREST RECREATION RESEARCH

		Permanent full-time positions
1974	\$1,326,000	45
1975	1,251,000	50
1976	1,267,000	50
Change	<u>+16,000</u>	<u>- -</u>

An increase of \$16,000 is proposed as follows:

- (1) Increase of \$13,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.
- (2) Increase of \$3,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.

No change in permanent full-time positions is proposed.

Growing public demands for forest-based recreation opportunities has generated new needs for both public and private developments, new forest management requirements, new conflicts among users and resource managers, and new threats to both the quality of recreational experiences and the health of the natural resource base. Conflicts and environmental impacts faced by today's resource managers were quite rare only 25 years ago.

Forest recreation research is being conducted to:

- (1) Develop new and better resource management practices which enhance amenity values.
- (2) Understand man's need for, and use of, forests, open space, and parks as environments for living, working, and recreation.
- (3) Analyze and understand the interactions between people and forests, social and economic factors underlying outdoor leisure activities, esthetic quality of forest landscapes and environmental situations, trends in recreation uses, use and management of wilderness areas, and alternative management strategies for meeting the public demands.
- (4) Identify interrelations among recreation, environmental amenities, and other uses of forests and open spaces--and find better ways of coordinating these uses.

The program includes research on planning and management of forest-based recreation opportunities, landscape scenery, preservation and use of wilderness resources, and the interactions between man and his forest environment.

Examples of Recent Accomplishments

Proper design of campsites minimizes adverse environmental impacts. Many parts of the Boundary Waters Canoe Area in Minnesota receive heavy visitation. Campsites must be designed and located to withstand pressures of use and still serve the visiting public. A study of newly developed campsites over a 5-year period showed that most changes in vegetation and soil happened during the first 2 years. This, and other findings, were incorporated into design and management plans that will meet the needs of recreationists and minimize environmental impacts of camping.

Factors in quality of wilderness experience identified. Most visitors prefer solitude to human contacts in wilderness use. Studies in Montana, Utah, Wyoming, and Minnesota showed that solitude was more important at campsites than on the trails. Large parties had a strong adverse effect on quality of the wilderness experience. Litter was disliked even more than crowding. Limits on party size, encouragement of off-season use, and zoning are suggested management actions.



Wilderness permits provide contacts for better management of wilderness use. Recreation studies show that the mandatory wilderness permit is a useful management tool. Use of the permit creates an opportunity for the wilderness manager to assist visitors in trip planning and to influence visitor choice. It also generates better information on wilderness use to aid in future management.

Trees provide important amenities in residential areas. The shade, wind moderation, privacy screening, homes for wildlife, and pleasing scenery provided by trees are reflected in increases in the market values of residential properties by as much as 15 to 27 percent of the appraised land value. Results of studies in Amherst, Massachusetts, indicate that trees retained when wooded land is developed for home-sites contribute from 7 to 27 percent of appraised land values.

SURFACE ENVIRONMENT AND MINING

		Permanent full-time positions
1974	1/ \$1,700,000	6
1975	2,264,000	6
1976	2,298,000	6
Change	<u>+34,000</u>	<u>- -</u>

An increase of \$34,000 is proposed as follows:

- (1) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$26,000.
- (2) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$8,000.

No change is proposed in permanent full-time positions.

SEAM is a research, development and application program designed to provide an innovative array of economical and effective surface mine reclamation alternatives which satisfy environmental, energy, and mineral needs. The direct end product of SEAM will be several demonstration areas where new techniques in planning of mining operations, new methods of rehabilitation, and environmental stewardship criteria can be evaluated and displayed.

SEAM is an on-the-ground problem-solving effort initially concentrated in the West. SEAM is a partnership undertaking with land managers, the mining industry and political jurisdictions. It will be closely coordinated with ongoing Federal and State programs.

The development and application funds for SEAM in fiscal year 1976 will be used to begin meeting five basic objectives:

Objective A. Determine and evaluate the effects of mining and related activities on forest and rangelands.

Objective B. Determine and evaluate the effects of mining and related developments on forest users and associated communities.

Objective C. Develop alternative methods to minimize adverse impacts of mining on the forest and range environment and on forest users and associated communities.

Objective D. Test, evaluate, analyze, and demonstrate alternative reclamation and planning methods

Objective E. Develop recommendations and disseminate findings.

Specifically the work includes:

- (1) Assembling existing inventory data, operationalizing remote sensing techniques and classifying and stratifying areas in land units to predict environmental responses.
- (2) Assembling and systematizing appropriate socio-economic data to determine cultural effects of mining on rural communities.

1/ For comparability, includes \$1 million appropriated for SEAM under Forest land management and \$700,000 under Forest watershed management research.

- (3) Acquiring equipment for collecting, processing, and planting seed or plants on disturbed areas and demonstrating sound techniques for mechanically stabilizing areas disturbed by mining.
- (4) Use of research results at plant material centers to develop, propagate, and disseminate seed and plant materials.
- (5) Development of guides and criteria to evaluate quality of mining plans.
- (6) Providing guides, technical service and demonstration of equipment and methods to industry and land managers.
- (7) Establishing large-scale demonstrations to test and illustrate improved reclamation and mine planning techniques.

FIRE AND ATMOSPHERIC SCIENCES RESEARCH

		Permanent full-time positions
1974	\$7,847,000	223
1975	8,213,000	244
1976	8,299,000	244
Change	<u>+86,000</u>	<u>- -</u>

An increase of \$86,000 is proposed as follows:

- (1) Increase of \$67,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.
- (2) Increase of \$19,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.

No change in permanent full-time positions is proposed.

The fire research program develops knowledge and technology to reduce forest fire costs and to protect the quality and productivity of American forests. This research is designed to aid all private, State, and Federal agencies in protecting 1.2 billion acres of forest and watershed lands. Although research has aided in bringing about a major percentage reduction in total forest fire losses, increasing use of forest lands makes the forest fire control job more difficult than ever before.

Opportunities to make substantial savings through development of new technology for fire prevention and control are clearly evident. Timber supply impacts from fire loss now average 1.5 million acres of commercial forest land burned per year. Environmental quality degradation results from fires on some five million acres on all classes of lands each year. The current fire research program is focused on:

- (1) Fire prevention.
- (2) Fire hazard reduction.
- (3) Fire control systems.
- (4) Prescribed burning smoke management.

Examples of Recent Accomplishments

Night helicopter program--now operational. Methods and systems for using aircraft in nighttime fire suppression operations have been tested operationally. This has involved the adaptation of night vision aids for night helicopter flying. With the aid of light amplification goggles combined with an infrared floodlight, pilots have operationally dropped fire retardants on several fires at night. This system also holds great promise for other forest protection and management activities.

Infrared fire maps successfully telemetered. A long-existing communications gap between the infrared fire mapping system in an overflying aircraft and the fire control forces on the ground has been bridged. It is now possible to telemeter high quality imagery of the fire from the monitoring aircraft to the fire control center on the ground. This enables ground crews to take immediate action on spot fires and provides current information to aid in selecting fire control strategy.

Progress in fuelbreak management. Communities confronted with the dual plagues of the threat from wildfires and the problem of disposing of their sewage effluent will benefit from recent research findings. In a 4-year experiment carried out by Forest Service scientists in cooperation with scientists at the University of California in Riverside, it has been found that treating an area of undisturbed mountain chaparral with sewage effluent establishes a fire resistant greenbelt which is maintained as long as the treatment continues. No change has been observed in ground water quality as a result of this treatment.



Improved fire model helps save emergency funds. Scientists recently achieved a significant breakthrough in the simulation of forest fire behavior by modeling the variable role which live or green fuels play in forest fire spread. A major improvement in the relation between predicted fire activity and actual fire severity resulted with models using the new fuel values. The National Fire Danger Rating System, which governs where emergency presuppression funds are used, is based on model-generated relationships between weather and fire behavior. This research will permit these funds to be used more effectively.

New techniques to stop incendiariism. Incendiariism is one of the major causes of forest fires in many of the Southern States. A comprehensive cooperative research program to identify the factors which underlie incendiary practices in those areas where the problem is most acute has recently been completed. The research, conducted by Louisiana State University, under a Forest Service grant, led to the creation of a "contractor program" in high fire incidence communities. The contractor, selected on the basis of criteria developed by Louisiana State University research, serves to convey fire prevention and correct fire use information to his friends, neighbors, and associates in the community. The contractor program has produced significant decreases in incendiariism where it has been tested.

FOREST INSECTS AND DISEASE RESEARCH1/
Permanent
full-time
positions

1974	\$10,761,000	444
1975	17,883,000	459
1976	18,145,000	459
Change	<u>+262,000</u>	<u>-</u>

An increase of \$262,000 is proposed as follows:

- (1) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$217,000.
- (2) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$45,000.

No change in permanent full-time positions is proposed.

The mission of forest insects and disease research is to provide the knowledge and technology to:

- (1) Define, measure, and evaluate the impacts of destructive insects and diseases on forest resources, and on wood in storage and use.
- (2) Detect, assess, and predict changes in the occurrence of these pests.
- (3) Reduce their numbers and impacts to tolerable levels by means of control techniques and management strategies that are ecologically sound, economically practical, and environmentally acceptable.

Current research is strongly oriented toward developing comprehensive integrated pest management systems for major forest insects and diseases.

Special emphasis is being given to:

- (1) Continuing work on the special forest insect program started in 1975. Intensive research and development will lead to control of three of the most important forest pests--the Douglas-fir tussock moth, Southern pine beetle, and the gypsy moth.
- (2) Understanding and quantifying the full impacts of pests such as the gypsy moth, Southern pine beetle, Douglas-fir tussock moth, mountain pine beetle, spruce budworms, dwarf mistletoes, fusiform rust, and root rots.
- (3) Finding and developing specific microbial and other biological agents for control of the gypsy moth, Douglas-fir tussock moth, root rots, and similar major pests.
- (4) Finding and developing safer chemicals for suppressing or manipulating pest populations. These materials include systemic fungicides; insect attractants, repellents, deterrents, and other behavioral chemicals; as well as more selective, nonpersistent toxicants.
- (5) Developing specialized equipment and improved techniques for efficient and safe application of pesticidal materials to individual trees and to forested areas.
- (6) Developing technology to detect, monitor, evaluate, and reduce adverse environmental effects of air pollutants in forest and related ecosystems.
- (7) Integrating control techniques and strategies into pest management systems that utilize pest-resistant varieties and cultural, chemical, and biological methods.

1/ Excludes following positions in other agencies that receive funds from the Forest Service: 1975, 13; 1976, 13.

Examples of Recent Accomplishments

Several chemicals show promise against Douglas-fir tussock moth. The recent outbreak of Douglas-fir tussock moth was the most damaging on record and emphasized the need for improved pest management techniques. Dylox and Sevin-4-oil were pilot tested in 1974 and showed considerable promise as effective controls for tussock moth larvae. Five of fifteen new insecticides applied to single trees gave over 90 percent control. In addition, the moth's natural sex attractant has been identified, synthesized, and field tested. This attractant appears to be highly effective for detecting future tussock moth outbreaks. Continuing research will provide the data necessary for registering new chemicals to replace DDT.

Fusiform rust causes \$30 million impact annually in Southeastern forests. A new procedure for determining the impact of forest pests has been developed and tested for fusiform rust on slash and loblolly pines. This procedure is based upon the fact that the market destiny of the tree largely determines the dollar impact of the pest. Because no single price reflects the full range of potential values, a useful approximation of wood value per cubic foot was developed by weighing and blending the different stumpage prices for various products. By combining the blended price with recent survey data, the monetary impact of fusiform rust was estimated to be \$30 million annually in the Southeastern United States.

Attractant chemicals identified for the principal insect carrier of Dutch elm disease. Scientists have identified a combination of three chemical attractants used by the smaller European elm bark beetle, the principal carrier of Dutch elm disease. The chemical bouquet is released by virgin females as they feed on elm trees. Scientists have isolated the attractant chemicals and have successfully used them for detecting and quantifying elm bark beetle populations in Michigan and California. The use of attractant-baited sticky traps combined with other techniques, such as sanitation practices and pesticide applications, offers promise of reducing the incidence of Dutch elm disease.

Wood destroying beetles can now be identified and controlled. In some areas of the United States, especially the Southeast, more than half the houses have insect or decay damage. Frequently, extensive damage is unrecognized or undetected by the homeowner. In addition, some pest control operators are unable to identify the cause of damage and consequently often apply improper or unnecessary controls. Three recently published papers now provide homeowners and pest control operators with the information necessary to prevent, detect, and control beetle damage.

Method developed for detecting decay in wood. The need for a technique of detecting defect in standing trees and wood in service has long been recognized. Too often a tree falls or a pole fails before defect symptoms become apparent. To detect such defects, a probe has been developed which, when inserted into a 3/32 diameter hole bored in wood, will measure the resistance of the surrounding material to an electrical current at the probe tip. This resistance as registered on an ohm meter indicates whether the material being tested is sound, discolored, or decayed. This technique has widespread applicability because of its accuracy, maneuverability, and ease of operation.

Aerial application of virus effective against gypsy moth. Aerial application of the nucleopolyhedrosis virus (NPV) produced substantial larvae mortality and foliage protection. Sufficient data now exists to support the issuance of an experimental use permit for further field testing. This is an important step in the registration procedure which, if completed, will make this virus the first NPV ever registered for forest insect control. Work is continuing on improved production techniques needed to yield material required for the necessary additional safety and efficacy testing.

Christmas tree disease controls developed. Several serious foliage diseases damage Christmas trees and often make them unmerchantable. Cultural and chemical control methods have been developed for three of the most serious of these diseases in the North Central States. Methods include the use of disease resistant tree varieties, techniques to prevent the transport of diseases on nursery stock into healthy plantations, and protective chemical sprays. Use of these control methods will help protect the \$210 million annual Christmas tree industry.



Superior mycorrhize help trees grow on harsh sites. Establishment of plants on harsh sites, such as acid strip mine spoils, is a difficult but important challenge. Mycorrhize or fungus-roots are formed by specialized fungi that surround or invade root tissue and modify the root environment in a way beneficial to both partners. Combined efforts of our scientists in Georgia, Oregon, Nebraska, and Wisconsin have identified species of mycorrhizal fungi that offer superior abilities to improve water and nutrient absorption by plant roots and to protect them from common soil borne pathogens. Preliminary observations indicate that trees with these fungi on their roots are able to grow in areas where they would not normally live. Inoculating seedlings with these fungi has great potential for revegetating sites where surface disturbance has severely altered the soil characteristics.



FOREST PRODUCTS UTILIZATION RESEARCHPermanent
full-time
positions

1974	\$9,723,000	444
1975	10,297,000	431
1976	11,147,000	438
Change	<u>+850,000</u>	<u>+7</u>

An increase of \$850,000, with an increase of 7 permanent full-time positions, is proposed as follows:

- (1) To accelerate research on developing an industrially suitable technology for producing a structural particleboard that will be useful as a substitute for sheathing plywood and improving sawmill techniques that are now being applied on a massive scale, \$681,000.
- (2) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$159,000.
- (3) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$10,000.

The research program called "STRETCH" will help assure adequate supplies of home building materials at favorable cost, while reducing net energy demand and environmental impact. Project STRETCH envisions an array of activities, including new and improved processing systems, automated lumber grade and quality assessment, and improved engineering utilization. Structural particleboard development and research to improve sawmilling techniques are part of STRETCH. Through full application of the STRETCH concept, a given volume of products should be obtainable from one-third less timber, and additional timber savings will result from improved utilization in engineered construction.

Within the goals of supplying timber and improving environments, the focus of forest products utilization research is on:

- (1) Producing the knowledge and technology necessary for improved utilization practices.
- (2) Extending the service life of wood in use.
- (3) Utilizing wood and paper wastes.
- (4) Developing technologies to produce or conserve energy in forestry related activities.

Examples of Recent AccomplishmentsImproved utilization

Accurate Pacific Northwest log valuation possible. Information on Pacific Northwest lumber and plywood grade yield for Douglas-fir sound timber and cull logs now makes possible accurate valuation and provides manufacturers vital information for making processing decisions. With major market changes occurring, accurate value-forecasting procedures are now available to Government or private sellers for Douglas-fir timber. Newly published cull log grading guides are especially useful because more of this material now enters the market.

Better bridges in Alaska. Recent advances in bridge decking design have been used in bridges serving the Alaska pipeline system. Vertically laminated bridge decking fastened with adhesives was demonstrated at the Forest Products Laboratory to outperform similar decking fastened with nails. Plant fabrication of glued laminated bridge decking greatly reduces on-site labor and makes this construction advantageous for remote areas.

Hawaiian eucalyptus utilized. Hawaiian-grown eucalyptus has been shown to be well suited for general construction as well as for pallets. By using newly discovered criteria, brittlewood, a limiting defect, can be segregated out. Finding ways to use one of the most commonly found Hawaiian trees and improving its processing means the cost of Hawaiian lumber used in construction and pallets can be greatly reduced.

Southern pine stumps used for pulp. An economical system for harvesting Southern pine stumps and taproots has been developed. The equipment severs the lateral roots and pulls the trees, including the taproots, from the soil like carrots and leaves the site in condition for replanting. The prototype machine has been field-tested successfully. The recovered stump material, comprising about 20 percent of the merchantable weight of bark free stems was shown suitable for kraft pulping.

New Wood Handbook for construction industry. The new Wood Handbook is an information source for engineers, architects, and builders selecting and using wood in structures. It contains information on physical, chemical, and mechanical properties of wood and how these properties are affected by variations in the wood itself. Design considerations are given to lumber, plywood, structural sandwich and laminated members, along with fasteners, gluing, fire resistance, finishing, preservation, and thermal insulation.

Extending the service life of wood in use

New wood preservative for marine piling. The wood preserving industry can greatly extend the service life of marine piling by using new dual treatments of creosote and copperchrome-arsenate. Other research provides new groundline treating methods to extend the life of poles and fence posts. This is of vital importance to the wood preserving industry which must offer long product service life to offset lower initial costs for competing untreated construction materials.

Pulpchip storage life extended. The pulp industry can prevent deterioration of pulpchip piles during extended storage by adding Vapam with 2,4-dinitrophenol to the piles. The pulp industry is shifting from stored wood to wood chips as more and more sawmill residues are being used, or as field-chipped wood makes its way to the papermill. Because these mills must keep up to several months of wood in reserve, yield losses through microbial activity have cost as much as several million dollars a year in some installations. This new method now assures mill managers that chips can be stored with confidence.

Utilizing wood and paper wastes

Better hardboard produced with less pollution. The hardboard industry can produce dry-formed hardboards with better physical and mechanical properties by regulating wood fiber pH more closely than previously. Dry-formed hardboard requires less water use in production. Adoption of the process will decrease water pollution control, costs, and give consumers a better product.

Residue used in house construction. A major research effort has brought a new forest residue-based product, COM-PLY, closer to industrial application and utilization. Construction standards now exist for this new product. Laboratory-made COM-PLY has been tested and evaluated against construction standards. Demonstration houses using COM-PLY have been built. This product offers great potential for extending our timber supply and meeting future residential construction material needs.

Lake States and Southern species in particleboard. Recent studies indicate satisfactory particleboards can be manufactured from "natural mixes" of diverse species. In Minnesota, Wisconsin, and Michigan these species include tamarack, aspen, and paper birch; in the South these would include mixtures of oak, gum, and hickory. By being able to fully utilize all species from any given forest area, the greatest opportunities for soundly based forestry programs will occur.

Production and conservation of energy in forestry related activities

Increased yield, less energy with roughwood pulping. A four percent increase in total yield can be obtained for the same energy inputs by pulping unbarked wood (roughwood). This represents a potential savings of more than \$4.00 per ton of paper produced and a proportionate reduction in energy use.

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FOREST ENGINEERING RESEARCH

		Permanent full-time positions
1974	\$1,547,000	50
1975	1,629,000	55
1976	1,643,000	55
Change	<u>+14,000</u>	<u>-</u>

An increase of \$14,000 is proposed as follows:

- (1) Increase of \$11,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.
- (2) Increase of \$3,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.

No change in permanent full-time positions is proposed.

Forest engineering research provides direct support to managers and planners through development of essential new forest management technologies. Timber harvesting, transportation planning, and mechanization of other forest practices have engineering components that require systematic study. Solutions have far-reaching implications affecting many forest management practices.

Forest engineering research has the following objectives:

- (1) Producing the knowledge and least cost technology necessary for more efficient and environmentally sound harvesting and transportation practices.
- (2) Developing engineering criteria for minimizing environmental and socio-economic impacts of mineral development on forest and related lands.
- (3) Developing the engineering systems needed to permit more effective and economical reforestation and silvicultural improvement operations.

Examples of Recent Accomplishments

Improved design of logging balloons. Wind tunnel tests of logging balloons' aerodynamic characteristics were conducted to permit design of optimum balloon logging systems. Results will be applied to provide low environmental impact balloon harvesting systems for difficult terrain in the Pacific Northwest.

Cable logging systems for Appalachia. Five cable systems, thought to be feasible for Appalachian use, were analyzed with respect to equipment features, environmental factors, and road requirements. A method of comparing cable systems was developed. This method of comparison and analysis gives the Appalachian logger a basis to select the cable logging system which best fits his situation. It will also assist him in selecting the environmentally "better" cable systems.

Tree shakers shown to be safe for pines. Mechanical tree shakers provide an effective method of collecting cones, but the influence of the resulting high-frequency vibrations on future tree growth and cone production has been unknown. A recently completed study of slash pine trees in central Louisiana showed that mechanical shaking did not adversely affect either flower and cone production or height and diameter growth. Tree shakers can therefore be safely used to harvest the \$1.5 million crop of slash pine seeds.

Removal of bark from wood chips of Western species found to be feasible. Commercially available portable chippers permit whole-tree utilization in the production of wood chips. Removal of bark from chips must be possible before the system will be widely accepted by the pulp and paper industry. Research on processing and conditioning treatments in debarking Western hemlock, Douglas-fir, red alder, and bigleaf maple showed that at least 90 percent of the wood fiber could be recovered. This is considered to be very acceptable by the industry.

FOREST RESOURCES EVALUATION

		Permanent full-time positions
1974	\$3,649,000	160
1975	3,918,000	167
1976	5,559,000	182
Change	<u>+1,641,000</u>	<u>+15</u>

An increase of \$1,641,000, with an increase of 15 permanent full-time positions, is proposed as follows:

- (1) To prepare and submit the initial assessment and program, and to develop techniques for acquiring and analyzing resource data for subsequent assessments as required by the Forest and Rangeland Renewable Resources Planning Act (PL 93-378), \$1,516,000.
- (2) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$111,000.
- (3) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$14,000.

Forest and rangelands in the United States vary greatly in productivity, ownership patterns, availability for industrial as well as noncommercial use, and opportunities for management. Accelerating changes in renewable resource conditions result from changing land uses, timber growth, resource harvesting, and losses to destructive agents. Demands on renewable resource lands for a wide range of uses are also increasing. Consequently, up-to-date inventories of forest and rangeland renewable resources are essential to guide programs for production of forest and rangeland resource values.

The Forest and Rangeland Renewable Resources Planning Act calls for a Renewable Resources Assessment that must consider all forest, range and related lands, in the United States, estimated to include 1.5 billion acres. The assessment, which must be transmitted to Congress on December 31, 1975, in 1979, and every 10 years thereafter, is to include, in part:

- (1) An analysis of present and anticipated uses, demand for, and supply of renewable resources, including a consideration of the international resource situation.
- (2) An inventory of present and potential renewable resources, and opportunities for improving their yield of goods and services, with estimates of the investment costs and returns to the Federal Government.

To provide the data and information base needed for the assessment, the Act expanded the scope of Section 9 of the McSweeney-McNary Act of May 22, 1928, which authorizes and directs resources evaluation research (formerly forest survey). It now requires a current, comprehensive survey and analysis of:

- (1) Present and prospective conditions of, and requirements for, renewable resources of forest and rangelands of the United States.
- (2) Supplies of these resources.
- (3) Present and potential productivity of the land.
- (4) Other facts necessary and useful in determination of ways and means to balance demands for and supplies of these resources.

Examples of Recent Accomplishments

Thirty-six million acres of commercial forest land were reinventoried during fiscal year 1974. Field surveys were conducted in Alaska, California, Iowa, Louisiana, Kentucky, Oregon and West Virginia. At this rate, timberlands of all States are being reinventoried on an average of every 17 years.

New resource evaluation studies completed. An ongoing responsibility of resources evaluation research is to analyze the condition of the resources and the suitability of possible treatments. Two recently completed studies, one in the south-eastern United States and the other in the Douglas-fir region of the Pacific Northwest, make use of inventory data to assess the extent, condition, productive capacity, and the current and prospective treatment of those lands which are to provide timber and related forest values. The procedures require the development of criteria for identifying and ranking opportunities for increasing prospective yields from these lands.

Surveys monitor industrial activity. Pulpwood production in the South increased to 47.1 million cords in 1973, an all-time high. Three-fourths of the volume was roundwood harvested from standing timber. The remainder was residue from sawmills and other wood-using plants. In the Northeast, veneer used for furniture and panels now exceeds the use of veneer for containers. These veneers are produced almost entirely from hardwoods.

Public informed of forest resource situation. Reports appraising the forest resource situation for Delaware, Louisiana, Missouri, New Jersey, North Carolina and Washington were published to provide the public with a basis for resource management and utilization decisions.



FOREST ECONOMICS AND MARKETING RESEARCHPermanent
full-time
positions

1974	\$3,653,000	137
1975	3,871,000	137
1976	3,924,000	137
Change	<u>+53,000</u>	<u>-</u>

An increase of \$53,000 is proposed as follows:

- (1) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$44,000.
- (2) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$9,000.

No change in permanent full-time positions is proposed.

Forest economics and marketing research seeks to improve economic benefits from use of the Nation's forest land for timber and other values, including water, recreation, range, and wildlife. Research is conducted on:

- (1) Uses and demands for wood products and other forest values to provide necessary inputs for assessing future demands on the Nation's forest lands.
- (2) Reducing costs in timber growing, harvesting, processing and product distribution to achieve more efficient use of available timber resources.
- (3) Timber growing and multiple use management policies and practices, including impacts on environmental quality, to provide guidelines for development of forest resources.
- (4) Evaluations of new technology to help guide implementation of a wide range of technical advances.

Collectively, the results of forest economics and marketing research constitute a major source of information for formulating forest management and use policies and practices at the national, State, and local levels.

Examples of Recent Accomplishments

Methods for integrated planning of road construction and timber harvest. A technique for determining optimal schedules of road building and timber harvesting now enables planners to design a forest development program to obtain the most benefits with the least investment of funds. The method schedules period-by-period road link construction with timber sales, taking into account the revenue gained from timber sales, advantages in securing regeneration, construction costs, and logging and hauling costs. Provisions enable the planner to insure that the solution meets sustained yield and other constraints. For the first time a computerized procedure is available to help integrate the planning of the Forest Service's two most significant programs in terms of revenue and funds invested.

Role of timber in important Oregon timber-producing county. As a guide for county planning, Forest Service scientists in the Pacific Northwest used an input-output model to identify the prospective impacts on the economy of Douglas County, Oregon, from changes in future timber harvesting. The study showed that approximately two-thirds of the economic base of Douglas County is dependent on the actions of the area's timber processing industries, the U.S. Forest Service and the Bureau of Land Management. The model used in the analysis provides a basis for testing the effectiveness of new industries, or changes in existing industries, in offsetting impacts of changes in timber-oriented industries.

Economic feasibility studies of "inwoods" pulp chip production from small tree and forest residues in the Southern Rocky Mountain Region. A study at two locations, one in Colorado and one in Arizona, analyzed the physical, economic, and environmental feasibility of using a portable debarking-chipping machine to convert whole

trees--bole, tops, and limbs--into chips for fiber products. The results indicate that, with some modifications in the system employed, "inwoods" chipping may become a feasible technique to supply pulp chips and reduce logging residues in the Rocky Mountains.

Chaparral conversion potential in Arizona. An economic analysis determined that conversion of 90 of some 139 potentially convertible chaparral areas to improved range was justified. On these areas the benefits included additional water runoff, more animal unit months of grazing, and a 34 percent reduction in firefighting cost. The net average return was \$2.51 per acre. In making the analysis, only 60 percent of any potential area was planned to be converted, allowing for establishment of a pattern of vegetation acceptable from the wildlife habitat and esthetic viewpoints.

Effect of intensive management on allowable cuts. New analyses show how allowable cut from a forest changes when the management plan includes responses to growth stimulating treatments, changes in the area of commercial forest, or shifts in the age-class distribution of the forest inventory. Allowable cut responds more to changes in long-term growth (as in regenerating stands to genetically improved stock) where there is high initial inventory, age classes are well distributed, growth increases can be cut from thinning, and growth increases are not too large. Short-term growth increases (such as in timber stand improvement) are most effective where initial inventory is low and not well distributed.

STANDARD FORM **304**
 May 1969, Bureau of the Budget
 Circular No. A-11, Revised.
 304-103

DEPARTMENT OF AGRICULTURE
 FOREST SERVICE
 FOREST PROTECTION AND UTILIZATION
 Forest Research

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 74 actual	19 75 estimate	1976 estimate
05-96-1100-0-1-302			
FOREST SERVICE--Direct obligations:			
Personnel compensation:			
11.1 Permanent positions.....	39,258	43,167	43,305
11.3 Positions other than permanent.....	2,932	2,727	2,923
11.5 Other personnel compensation.....	131	100	100
11.8 Special personal services payments.....			
Total personnel compensation.....	42,321	45,994	46,328
Personnel benefits:			
12.1 Civilian	3,994	4,347	4,626
13.0 Benefits for former personnel			
21.0 Travel and transportation of persons.....	2,039	2,095	2,100
22.0 Transportation of things.....	683	750	800
23.0 Rent, communications, and utilities.....	1,598	2,400	2,600
24.0 Printing and reproduction.....	601	1,000	1,000
25.0 Other services	10,110	14,987	15,708
26.0 Supplies and materials.....	1,495	1,600	1,600
31.0 Equipment	1,799	1,900	1,900
32.0 Lands and structures.....	85	50	50
33.0 Investments and loans.....			
41.0 Grants, subsidies, and contributions.....			
42.0 Insurance claims and indemnities.....	3	.....	.....
43.0 Interest and dividends.....			
44.0 Refunds			
Subtotal direct obligations	64,728	75,123	76,712
95.0 Quarters and subsistence charges direct	-16	-16	16
99.0 Total obligations, Forest Service	64,712	75,107	76,696

STANDARD FORM **304**
 May 1969, Bureau of the Budget
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 304-103

DEPARTMENT OF AGRICULTURE
 FOREST SERVICE
 FOREST PROTECTION AND UTILIZATION
 Forest Research
 OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 74 actual	19 75 estimate	19 76 estimate
05-96-1100-0-1-302			
FOREST SERVICE--Reimbursable obligations:			
Personnel compensation:			
11.1 Permanent positions.....	651	525	525
11.3 Positions other than permanent.....	134	89	89
11.5 Other personnel compensation.....	11	.....	.....
11.8 Special personal services payments.....	5	.....	.....
Total personnel compensation.....	801	614	614
Personnel benefits:			
12.1 Civilian.....	74	54	54
13.0 Benefits for former personnel.....			
21.0 Travel and transportation of persons.....	65	43	43
22.0 Transportation of things.....	19	25	25
23.0 Rent, communications, and utilities.....	60	28	28
24.0 Printing and reproduction.....	3	3	3
25.0 Other services.....	308	1,462	1,468
26.0 Supplies and materials.....	75	75	75
31.0 Equipment.....	40	10	10
32.0 Lands and structures.....			
33.0 Investments and loans.....			
41.0 Grants, subsidies, and contributions.....	.....	6	.....
42.0 Insurance claims and indemnities.....			
43.0 Interest and dividends.....			
44.0 Refunds.....			
Subtotal reimbursable obligations.....	1,445	2,320	2,320
Total obligations, Forest Service.....	66,157	77,427	79,016

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304-103

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST PROTECTION AND UTILIZATION
Forest Research

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 74 actual	19 75 estimate	19 76 estimate
05-96-1100-0-1-302			
ALLOCATION ACCOUNTS			
Personnel compensation:			
11.1 Permanent positions.....	.....	213	223
11.3 Positions other than permanent.....	.....	15	15
11.5 Other personnel compensation.....			
11.8 Special personal services payments.....			
Total personnel compensation.....	.....	228	238
Personnel benefits:			
12.1 Civilian.....	.....	20	20
13.0 Benefits for former personnel.....			
21.0 Travel and transportation of persons.....	.....	52	52
22.0 Transportation of things.....	.....	23	23
23.0 Rent, communications, and utilities.....	.....	42	42
24.0 Printing and reproduction.....			
25.0 Other services.....	.....	351	351
26.0 Supplies and materials.....	.....	321	321
31.0 Equipment.....	.....	163	163
32.0 Lands and structures.....			
33.0 Investments and loans.....			
41.0 Grants, subsidies, and contributions.....	.....	1,305	1,305
Total obligations, allocation			
42.0 Insurance claims and indemnities account.....	.....	2,505	2,515
99.0 Total obligations.....	66,157	79,932	81,531
43.0 Interest and dividends.....			
44.0 Refunds.....			
Obligations are distributed as follows:			
Department of Agriculture:			
Forest Service.....	66,157	77,427	79,016
Animal and Plant Health Inspection Service.....	.....	730	740
Agricultural Research Service...	.....	470	470
99.0 Total obligations.....			
Cooperative State Research Service	.....	1,305	1,305

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST PROTECTION AND UTILIZATION
Forest Research
Personnel Summary

Identification code			
05-96-1100-0-1-302	1974 actual	1975 estimate	1976 estimate
FOREST SERVICE			
Direct:			
Total number of permanent positions	2,593	2,633	2,639
Full-time equivalent of other positions	376	350	353
Average paid employment	2,830	2,894	2,903
Reimbursable:			
Total number of permanent positions	42	33	33
Full-time equivalent of other positions	16	11	11
Average paid employment	58	44	44
Average GS grade	8.61	8.67	8.66
Average GS salary	\$14,322	\$15,147	\$15,174
Average salary of ungraded positions	\$11,174	\$11,794	\$11,794
ALLOCATION ACCOUNTS			
Total number of permanent positions ..	0	13	13
Full-time equivalent of other positions	0	2	2
Average paid employment	0	14	14
Average GS grade .....	.....	8.60	8.60
Average GS salary .....	.....	\$15,371	\$15,366
(Mono cast: 21.5)	(Mono cast: 5)	(Mono cast: 5)	124 (Mono cast: 4.9)

FOREST SERVICE
FOREST PROTECTION AND UTILIZATION -- FOREST RESEARCH

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976	9/30/76
	:Estimate	:Estimate
Forest research		
Forest and range management research:		
Trees and timber management research	\$14,451	34,254
Forest watershed management research	7,282	2,570
Wildlife, range, and fish habitat research	5,196	909
Forest recreation research	1,267	516
Surface environment and mining	2,298	1,636
Total, Forest and range management research	<u>30,494</u>	<u>9,885</u>
Forest protection research:		
Fire and atmospheric sciences research	8,299	1,658
Forest insects and disease research	18,145	4,254
Total, Forest protection research	<u>26,444</u>	<u>5,912</u>
Forest products and engineering research:		
Forest products utilization research	11,147	2,820
Forest engineering research	1,643	364
Total, Forest products and engineering research	<u>12,790</u>	<u>3,184</u>
Forest resource economics research:		
Forest resources evaluation	5,559	1,556
Forest economics and marketing research	3,924	1,013
Total, Forest resource economics research	<u>9,483</u>	<u>2,569</u>
Total, Forest research	<u>79,211</u>	<u>21,550</u>

FOREST SERVICE

FOREST PROTECTION AND UTILIZATION -- FOREST RESEARCH

Justification for Transition Period July 1-September 30, 1976

An estimate of \$21,550,000 is requested for forest research programs which is about 27 percent of proposed funding at the fiscal year 1976 budget estimate of \$79,211,000.

The program level for the transition period represents the continuation of programs at the fiscal year 1976 level. The relationship of the obligations and outlays for the period July 1 through September 30, 1974, to the total fiscal year 1975 program was used as a basis for determining the obligations and outlays for the transition period. The current rates were applied to the fiscal year 1976 program.

These funds will be used to continue a broad program of research in the transition period at levels similar to fiscal year 1976 in the following activities (dollars in thousands):

Trees and timber management	\$4,254
Forest watershed management	2,570
Wildlife, range, and fish habitat	909
Forest recreation	516
Surface environment and mining	1,636
Fire and atmospheric sciences	1,658
Forest insects and disease	4,254
Forest products utilization	2,820
Forest engineering	364
Forest resources evaluation	1,556
Forest economics and marketing	<u>1,013</u>
Total	21,550

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See page 88 for language and page 89 for Program and Financing schedules.

GEOGRAPHIC BREAKDOWN OF APPROPRIATIONS

State and Private Forestry Cooperation

	1975 <u>estimate</u>	1976 <u>estimate</u> (in thousands)	<u>Change</u>
Alabama	\$886	\$896	\$10
Alaska	594	601	7
Arizona	135	136	1
Arkansas	781	790	9
California	1,634	1,655	21
Colorado	445	451	6
Connecticut	198	200	2
Delaware	104	105	1
District of Columbia	1,220	1,232	12
Florida	1,110	1,123	13
Georgia	1,073	1,055	-18
Guam	29	63	34
Hawaii	108	109	1
Idaho	552	559	7
Illinois	292	296	4
Indiana	229	231	2
Iowa	118	120	2
Kansas	343	347	4
Kentucky	715	723	8
Louisiana	872	883	11
Maine	755	764	9
Maryland	468	474	6
Massachusetts	337	341	4
Michigan	920	931	11
Minnesota	622	630	8
Mississippi	936	947	11
Missouri	827	837	10
Montana	422	427	5
Nebraska	300	304	4
Nevada	421	426	5
New Hampshire	226	229	3
New Jersey	414	419	5
New Mexico	194	197	3
New York	826	836	10
North Carolina	1,074	1,087	13
North Dakota	96	97	1
Ohio	420	425	5
Oklahoma	464	469	5
Oregon	914	925	11
Pennsylvania	807	817	10
Puerto Rico	152	154	2
Rhode Island	101	102	1
South Carolina	884	894	10
South Dakota	187	189	2
Tennessee	802	812	10
Texas	663	671	8
Utah	317	322	5
Vermont	196	199	3
Virgin Islands	16	16	-
Virginia	915	926	11
Washington	983	995	12
West Virginia	412	417	5
Wisconsin	1,141	1,153	12
Wyoming	213	215	2
Rescission of enacted appropriation pending (R75-9)	4,921	-	-4,921
Total	34,784	30,222	-4,562

COOPERATION IN FOREST FIRE CONTROL

		<u>Permanent full-time positions</u>
1974	\$20,079,000	51
1975	25,135,000	56
1976	20,257,000	56
Change	<u>-4,878,000</u>	<u>- -</u>

A net decrease of \$4,878,000 is proposed as follows:

- (1) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$7,000.
- (2) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$36,000.
- (3) A decrease of \$4,921,000 of funds appropriated in 1975. However, proposed 1976 program level is comparable to 1975 since this amount is proposed for rescission in 1975.

No change is proposed in permanent full-time positions.

Protection of non-Federal land from destruction by fire is primarily a State and local responsibility. The Federal role is one of providing technical support and financial assistance as incentive to the States in their effort.

Protection from fire is a necessity for the development of all forest resources--water, timber, special forest products, wildlife, forage, and recreation. The Cooperative Forest Fire Control program is authorized by the Clarke-McNary Act of 1924. During the first five-year period of the program (1924-1928) losses from wild-fire were high with an average of 262 fires and 58,800 acres burned per million acres protected. This compares with 158 fires and 2,474 acres burned per million acres protected during the most recent five-year period (1969-1973). Another positive factor is the increase in protected area from 284 million acres in 1924 to over 626 million acres in 1973. Protection costs have grown from \$1.9 million in 1924 to over \$136 million in 1973. Much of the increase in fire control costs is due to the greater use of more effective and expensive new types of equipment and higher operating costs. There has been a significant increase in the use of aircraft in fire detection and suppression which is costly.

This program enables the State forestry agencies to organize and train effective fire control organizations. Air and water pollution will be lessened by reducing the number of wildfires, especially the large (over 300 acre) disaster-type fires. These are the most destructive as well as the most costly fires. A new fire protection analysis is now underway. Information obtained from this thorough analysis will help to better direct fire organizations efforts in coming years. Law enforcement training will be increased to provide a better means to reduce man-caused fires. Increased emphasis will be made in use of fuels management, including the use of prescribed fire as a tool in the overall fire prevention effort. Results of the national fire prevention study, currently in progress, will be used in implementing an action program.

A formula that applies uniformly to all 50 State cooperators is used in distributing the Federal funds. The formula recognizes the two factors most directly related to fire control:

- (1) Extent of the fire protection job.
- (2) State and local performance as represented by expenditures.

Each of these factors is given equal weight. The half based on need is termed the "regular allotment" and is determined by a periodic fire protection analysis. A new analysis is currently in progress. The half based upon expenditures uses the average of the most current 3-year State and private expenditures and is termed the "extra allotment." The total of these two parts becomes the Federal allotment to each State. A sliding scale is used to reduce the total allotment to bring total State payments equal to available funds.

The table following this section shows proposed financing for fiscal year 1976 compared with fiscal years 1974 and 1975.

Examples of Recent Accomplishments

The effect of keeping well trained and equipped fire control forces for fast initial attack was demonstrated in calendar year 1973. There were only 1,086,000 acres burned on lands protected by State fire organizations. This is the lowest number of acres burned ever recorded under the C-M 2 Program--a fine tribute to the 50th Anniversary of the Clarke-McNary Act.

States continue to use modern aircraft in their fire programs. Nebraska used 35 aerial applicators for fire suppression and Hawaii used a helicopter for surveillance and apprehension in an arsonist case. Massachusetts began a full scale aerial detection system and Florida, during a serious fire period, used contract aircraft and State-owned Beavers to drop 82,000 gallons of fire retardant. Arkansas began evaluation of aircraft for use in aerial detection and Oregon used a National Guard infrared aerial mapping plane to map forest fires. Once again, Pennsylvania contracted both helitankers and light aircraft for detection and suppression. Also, they used large air tankers for air retardant drops.

COOPERATIVE FOREST FIRE CONTROL

	State and Private Funds Expended FY 1974	Federal Allotments FY 1974	Federal Allotments FY 1975	Federal Allotments FY 1976 1/ (estimate)
Alabama	\$1,948,085*	\$582,200	\$575,700	\$575,700
Alaska	3,750,024*	387,400	409,400	409,400
Arizona	222,660	65,200	65,200	65,200
Arkansas	1,852,752*	531,200	533,000	533,000
California	33,088,041*	1,243,100	1,209,100	1,209,100
Colorado	1,848,930*	297,700	337,200	337,200
Connecticut	199,041*	138,000	134,000	134,000
Delaware	80,982	50,400	61,100	61,100
Florida	8,311,208*	706,700	697,900	697,900
Georgia	7,004,065*	735,500	715,700	715,700
Guam	-	-	16,000	47,000
Hawaii	190,777*	65,700	65,700	65,700
Idaho	834,548*	388,600	378,600	378,600
Illinois	434,519*	162,100	166,900	166,900
Indiana	306,287	101,100	105,300	105,300
Iowa	122,754*	69,200	66,900	66,900
Kansas	884,310*	242,200	255,700	255,700
Kentucky	1,655,584*	435,100	431,100	431,100
Louisiana	3,228,476*	635,300	625,800	625,800
Maine	2,062,305*	501,000	503,100	503,100
Maryland	974,513*	281,500	279,300	279,300
Massachusetts	598,377*	242,200	235,800	235,800
Michigan	3,279,431	625,300	617,100	617,100
Minnesota	883,027*	396,800	386,100	386,100
Mississippi	3,493,727*	628,500	628,200	628,200
Missouri	1,338,764	531,200	524,100	524,100
Montana	1,044,626*	234,700	253,300	253,300
Nebraska	817,163*	207,800	220,400	220,400
Nevada	881,549	228,100	226,000	226,000
New Hampshire	340,923*	134,700	136,000	136,000
New Jersey	1,000,882*	295,600	299,700	299,700
New Mexico	314,124	88,300	86,900	86,900
New York	2,012,513*	537,600	532,900	532,900
North Carolina	4,108,762*	662,200	651,900	651,900
North Dakota	36,901*	38,200	58,000	58,000
Ohio	535,798*	228,600	222,900	222,900
Oklahoma	739,614*	298,200	313,500	313,500
Oregon	5,079,954*	660,100	647,800	647,800
Pennsylvania	3,748,693*	506,000	512,200	512,200
Rhode Island	311,192	76,300	80,700	80,700
South Carolina	3,440,253*	613,000	610,800	610,800
South Dakota	359,613*	102,000	114,100	114,100
Tennessee	2,535,917*	607,400	594,500	594,500
Texas	1,641,258*	443,300	444,500	444,500
Utah	521,075	158,000	161,100	161,100
Vermont	109,746*	76,400	74,000	74,000
Virginia	2,279,647*	565,200	565,800	565,800
Washington	5,655,418*	663,300	653,700	653,700
West Virginia	699,824*	258,100	257,100	257,100
Wisconsin	2,887,923*	616,000	608,400	608,400
Wyoming	284,570*	149,200	157,300	157,300
Administration, inspection, prevention and special services	- -	1,587,500	1,706,500	1,718,500
Rescission pending (R75-9)	- -	- -	4,921,000	- -
Total	119,981,125	20,079,000	25,135,000	20,257,000

* Estimated expenditures. Actual fiscal year 1974 expenditures not available.

1/ While the amount available to a State may, if the allotment is small, exceed previously computed expenditures by that State, the actual payment to a State never exceeds State and private funds expended by or under the control of the State.

COOPERATION IN FOREST TREE PLANTING

		Permanent full-time positions
1974	\$332,000	5
1975	336,000	4
1976	337,000	4
Change	<u>+1,000</u>	<u>- -</u>

An increase of \$1,000 is proposed to provide for full year costs of the pay increase effective in fiscal year 1975. No change in permanent full-time positions is proposed.

This program provides financial and technical assistance to cooperating States in the production, acquisition, and distribution of tree seed and planting stock for forest and windbarrier plantings on non-Federal lands. Seed and trees thus furnished at modest cost form the backbone of current public forestation efforts which contribute to increased timber production and the enhancement of environmental values, including public recreation, wildlife habitat, and pollution abatement.

Program funds are used to assist the States in meeting the cost of seed extraction, seedling production, nursery maintenance, and other operations.

The procedure for allotment of funds provides for a project approach with funds to be allocated on the basis of projects which will be designed to stimulate more efficient nursery operations. Proposals to date include projects such as:

- (1) Containerized seedling production.
- (2) Mechanized seedling harvest.
- (3) Development of improved methods for seedling storage.

The number of trees that States shipped to landowners during each of the past four fiscal years follows:

Year	Federal-State Coop. Program--Seedlings
1970	494,941,000
1971	550,797,000
1972	552,997,000
1973	581,090,000

Examples of Recent Accomplishments

Production of improved genetic quality seedlings. Improved genetic quality forest tree seed is becoming available for seedling production at a rapidly increasing rate. For example, during the 1973-74 season, seed orchard seedling stock amounted to over 100 million seedlings, which means that about 140,000 acres will be growing more wood than would be the case if regular seeds were used.

REGULAR ALLOTMENTS TO STATES

	FY 1975	FY 1976
Arizona	\$6,000	\$6,000
Colorado	7,000	7,000
Delaware	2,500	2,500
Guam	5,000	8,000
Idaho	10,000	10,000
Kansas	10,000	10,000
Montana	10,000	10,000
Nebraska	8,000	8,000
Nevada	12,000	12,000
New Jersey	2,500	2,500
New Mexico	10,000	10,000
North Dakota	12,000	12,000
Oklahoma	9,000	9,000
Puerto Rico	2,500	2,500
Rhode Island	2,000	2,000

REGULAR ALLOTMENTS TO STATES--continued

	<u>FY 1975</u>	<u>FY 1976</u>
South Dakota	10,000	10,000
Utah	10,000	10,000
Wyoming	4,000	4,000
	<u>132,500</u>	<u>135,500</u>

SPECIAL PROJECT ALLOTMENTS TO STATES

	<u>FY 1975</u>	<u>FY 1976</u>
Alabama (Auburn University weed control)	\$27,000	
California (sprinkler system, spray rig, seed drill)	7,000	
Connecticut (seedling harvester)	4,000	
Idaho (transplanter, container planting, nursery study) ..	20,100	\$6,500
Maryland (special seed collection)	4,500	
Mississippi (seedling harvester)	3,400	
New York (seedling storage)	4,600	
Pennsylvania (cone harvester, hardwood dewinger)	3,100	
Puerto Rico (irrigation system)	2,500	
Texas (weed control)	4,000	4,000
Vermont (seed production)	1,800	5,000
Virgin Islands (nursery improvements)	2,500	2,500
Virginia (nursery soil fumigation)	2,000	

Implementation of containerized seedlings research. Research concerning containerized seedlings is being implemented into practice at great speed. To cite but one example, four years ago only 900,000 containerized seedlings were grown in the entire Pacific Northwest. In 1974 more than 40 million containerized seedlings were produced. These offer many advantages over bare-rooted stock; i.e., shorter production time, less space needed, better survival, and more flexibility in planting time and species used.

COOPERATION IN FOREST MANAGEMENT AND PROCESSING

		Permanent full-time positions
1974	\$5,052,000	26
1975	5,590,000	31
1976	5,605,000	31
Change	<u>+15,000</u>	<u>- -</u>

An increase of \$15,000 is proposed as follows:

- (1) To provide full year costs of the pay increase effective in fiscal year 1975, \$8,000.
- (2) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$7,000.

No change in permanent full-time positions is proposed.

Through State-Federal cooperative programs, technical assistance is provided to private nonindustrial woodland owners, loggers, wood-using industries, communities, and organizations concerned with the protection, management and use of forest resources. On-the-ground assistance is provided by State professional personnel with training and expert backstopping by Federal specialists.

Three-fifths of the productive forest land in the United States, or 296 million acres, is in the hands of nonindustrial private owners. Most of them lack the technical forestry skills required to manage the lands to provide their share of the Nation's needs for forest products and services. The program provides technical assistance to these landowners through State service foresters to increase the flow of timber and nontimber products and to improve environmental values.

Technical assistance is given to loggers, sawmill, and other plant operators to improve logging, processing and business methods to improve the supply of softwood lumber and plywood through the reduction of wood waste and increased utilization of wood residue.

The program of technical assistance to sawmill operators through the sawmill improvement program and closely related activities will continue in fiscal year 1976. The emphasis is on expanding and improving the capability of the States in forest products utilization activities. An estimated 200-mill analyses will be completed this year and in fiscal year 1976.

State forestry personnel provide specialized forestry assistance to Rural Development Committees throughout the Nation. State personnel serve on State committees, sub-State units, and rural communities, thereby strengthening the overall effectiveness of local rural development efforts.

Technical assistance is provided in cooperation with the State forestry agencies in 50 States, Puerto Rico, the Virgin Islands, and Guam. Significant thrusts of the program are to develop opportunities for private consulting foresters to establish and expand their forestry assistance operations.

Base level Federal appropriated funds are distributed to the States by formula which is applied to each State's need and performance.

- (1) Need is based on the number of small woodland owners in the State and the acres of commercial forest owned expressed as a percentage of the total in the Nation.
- (2) Performance is based on State funds expended in excess of Federal funds. The excess is determined for each State and then expressed as a percentage of the total excess for all States.
- (3) The average of the need and performance percentages for each State represents the State's share of total funds available for distribution
- (4) Each State is guaranteed an amount it can match up to \$30,000

Major work accomplishments are shown in the following table:

<u>Major Benefits</u>	<u>Unit</u>	<u>FY 1974</u>	<u>FY 1975</u>
Woodland owners assisted	No.	90,000	100,000
Forest products operators assisted <u>1/</u>	No.	6,500	7,200
Incidental forestry assistance	No.	193,000	180,000
Area of woodland involved	Acres	7,500,000	7,200,000
Volume harvested under improved practices <u>2/</u> ...	MBF	353,000	300,000
	Cords	1,703,000	1,000,000
Area of timber stand improvement <u>2/</u>	Acres	138,400	373,000
Area planted or seeded <u>2/</u>	Acres	733,500	344,000

1/ The reporting in this category reflects only those operators assisted which resulted in known product output increases. Assistance is reflected in incidental assistance when product output is unknown.

2/ The reported figures reflect the changing program thrust and increased emphasis on stand management in woodland owner assistance.

Examples of Recent Accomplishments

Assistance to an owner of 5 acres of woods helped him realize over \$6,000 in stump-age payments. The first assist to this landowner through the service forestry program was provided 30 years ago. Mention is made of this assist to signify the importance of continued management on even small tracts of forest land.

In Indiana, the State utilization specialist analyzed the operation of a hardwood sawmill. Adoption of only part of his recommended changes has increased the mills production by 10 percent, or 1 million board feet per year, valued at \$200,000. This added production, provides at least one extra job in the mill and three in the woods. Cost of the assist was \$700.

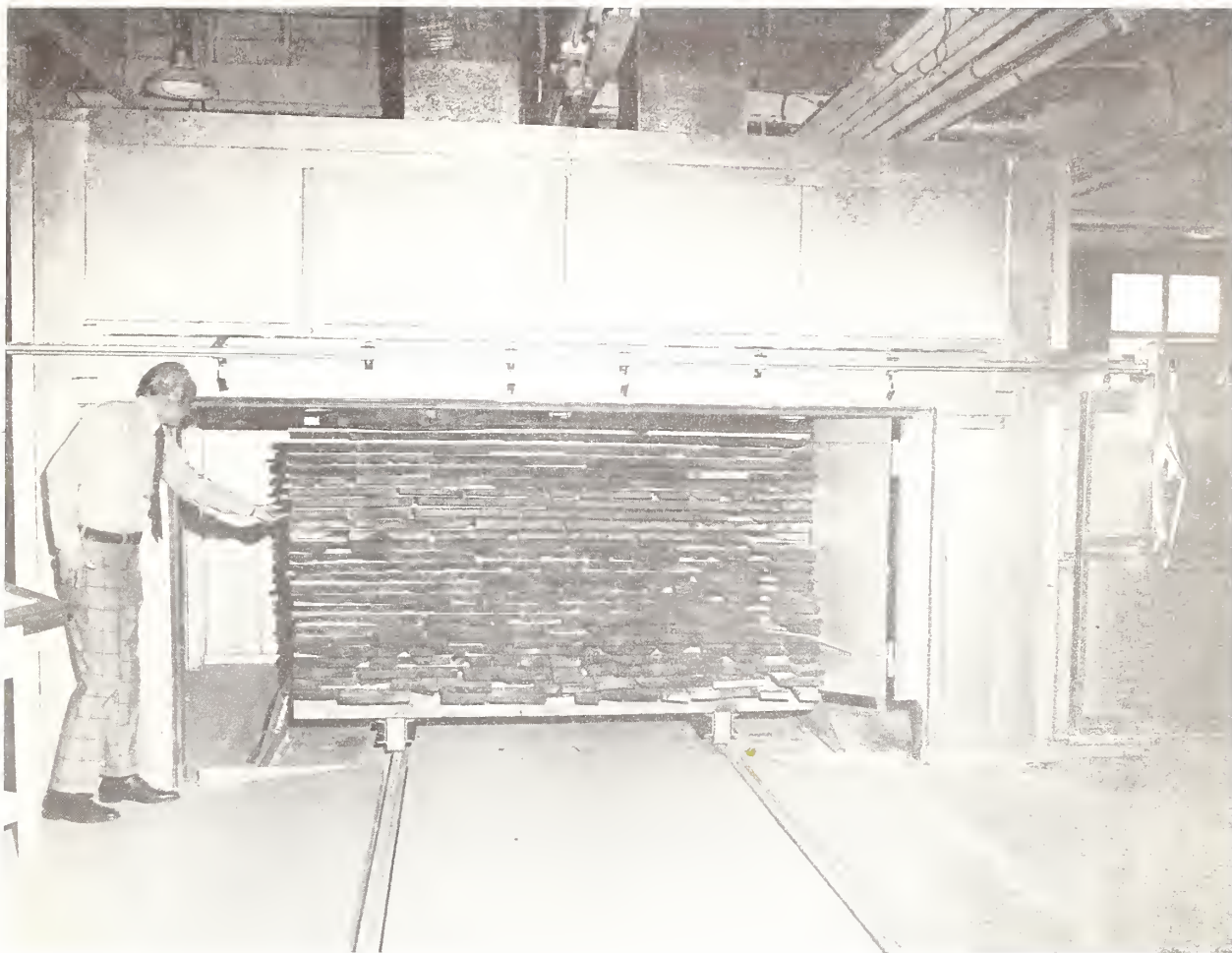
In 1969, a landowner in Washington State wanted to sell his timber for \$27,500. The service forester discussed with him the importance of letting thrifty trees grow to maturity. As a result, less than three-fourths of the stand was harvested in 1973 which brought in \$68,000. The landowner now has good access roads, the area is reforested and there are still 400 thousand board feet of standing timber on the site.

An analysis of an Illinois sawmill by a team of State and Federal wood utilization specialists resulted in increased use of local, low-quality timber, added employment of local workers and improved working conditions. The mill's production was more than doubled primarily through elimination of down time.

In 1972 a management forester for the South Carolina Forestry Commission made a forestry examination on a privately owned 35-acre tract near Early Branch, South Carolina. Later, a State forester representative, who had recently been assigned to this area, was requested to help carry out the practices recommended and provide current data for obtaining an FHA farm improvement loan. The forester provided the value data needed for the loan, advised on how to prescribe burn, and marked for a thinning on 12 acres. With assistance from the Commission, the landowner burned the area as prescribed, and sold the marked pulpwood (72 cords of pine and 12 cords of hardwood) for a total of \$639.36. He used this and proceeds from his FHA loan to further improve his operations and purchase an adjacent small tract to increase the economic return from his farm and forestry operations.

The following table shows proposed financing in fiscal year 1976 compared with fiscal years 1974 and 1975:

	FY 1974	1975 estimate	1976 estimate
Alabama	\$111,200	\$126,300	\$126,300
Alaska	23,000	23,000	23,000
Arizona	20,000	32,900	32,900
Arkansas	92,300	112,500	112,500
California	78,300	75,600	75,600
Colorado	52,800	56,000	56,000
Connecticut	33,900	33,900	33,900
Delaware	22,000	30,000	30,000
Florida	189,600	216,000	216,000
Georgia	207,700	219,400	219,400
Guam	-	8,000	8,000
Hawaii	28,000	28,000	28,000
Idaho	39,100	37,700	37,700
Illinois	69,100	73,000	73,000
Indiana	62,500	63,000	63,000
Iowa	42,500	42,000	42,000
Kansas	35,100	35,500	35,500
Kentucky	155,000	165,600	165,600
Louisiana	89,400	105,300	105,300
Maine	105,000	110,300	110,300
Maryland	78,200	80,300	80,300
Massachusetts	41,900	41,600	41,600
Michigan	126,200	141,800	141,800
Minnesota	97,500	101,800	101,800
Mississippi	128,000	152,700	152,700
Missouri	150,100	163,200	163,200
Montana	53,100	51,200	51,200
Nebraska	36,100	35,900	35,900
Nevada	33,000	31,800	31,800
New Hampshire	52,600	55,400	55,400
New Jersey	42,900	43,100	43,100
New Mexico	43,600	46,100	46,100
New York	167,600	172,300	172,300
North Carolina	258,000	283,200	283,200
North Dakota	30,000	30,300	30,300
Ohio	106,100	122,900	122,900
Oklahoma	37,600	49,000	49,000
Oregon	63,600	61,400	61,400
Pennsylvania	147,300	172,900	172,900
Puerto Rico	30,300	30,500	30,500
Rhode Island	25,000	25,000	25,000
South Carolina	121,600	136,800	136,800
South Dakota	32,300	31,600	31,600
Tennessee	92,500	99,500	99,500
Texas	84,600	105,400	105,400
Utah	33,800	40,600	40,600
Vermont	82,600	96,700	96,700
Virgin Islands	13,000	13,000	13,000
Virginia	202,600	225,200	225,200
Washington	72,200	94,700	94,700
West Virginia	81,100	82,200	82,200
Wisconsin	193,600	189,300	189,300
Wyoming	32,600	34,000	34,000
Reserve	-	24,000	24,000
Total to States	4,245,700	4,659,400	4,659,400
Forest Service administration	806,300	930,600	945,600
Total appropriation	5,052,000	5,590,000	5,605,000



Thousands of students from wood industries have benefited from wood drying training sessions held at the Forest Products Laboratory throughout the years. The 100th Dry Kiln Demonstration Session was held this year. Proper drying reduces wood waste and improves the quality of consumer products.

GENERAL FORESTRY ASSISTANCE

Project (26)

		Permanent full-time positions
1974	1/ \$2,718,000	76
1975	3,723,000	95
1976	4,023,000	98
Change	<u>+300,000</u>	<u>+3</u>

An increase of \$300,000 is proposed as follows, together with an increase of 3 permanent full-time positions:

- (1) To protect threatened and endangered species and their habitats as required under the provisions of the Endangered Species Act of 1973, \$200,000.
- (2) To provide for the full year costs of the pay increase effective in fiscal year 1975, \$32,000.
- (3) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, \$68,000.

The increase of \$200,000 will be used for the following activities required under the provisions of the Endangered Species Act of 1973 (87 Stat. 884):

- (1) To work with State forestry and wildlife agencies and the Bureau of Sport Fisheries and Wildlife of the Department of the Interior to locate the habitat of endangered and threatened species.
- (2) To modify the various forestry practices carried out under State-Federal programs to insure that actions do not jeopardize endangered or threatened species or result in the destruction or modification of their habitat.
- (3) To train program personnel, both State and Federal, to achieve the foregoing objectives.

General forestry assistance funds are used to accomplish highly specialized forestry assistance not available through other Forest Service cooperative programs. A major portion of the funds is used to provide professional assistance to State forestry agencies, woodland owners, associations, and the wood industry to enhance rural community development and to achieve more efficient management, increase production, and improve processing of the Nation's timber resources.

General forestry assistance funds are used to provide expert forest resource management and use assistance in such activities as:

- (1) Forest products utilization.
- (2) Dissemination of forest research findings.
- (3) Continuous forest inventory.
- (4) Advisory management services provided to State forestry agencies, including organizational management training.
- (5) Multiple use management.
- (6) Forest hydrology.
- (7) Wild and scenic river studies.
- (8) Threatened and endangered species.
- (9) Land use planning.
- (10) Special studies.

Technical assistance is provided directly by the Forest Service or through specific agreements with State foresters, colleges, and/or private contractors.

1/ For comparability, \$159,000 for Wild and Scenic River Studies on State and private lands is shown under this activity rather than under Soil and water management as appropriated.

Examples of activities currently being conducted are:

- (1) Rural development and cooperative area land use planning. Special efforts are being made to involve State foresters in cooperative area land use planning and rural development. These efforts are directed toward improving the use of forest resource in all aspects of State and local planning and development. Forest planning and development provides a multitude of benefits to rural communities, such as:
 - (a) Employment for local workers.
 - (b) Recreation for resident and non-resident visitors.
 - (c) Adequate supplies of quality water.
 - (d) Raw materials such as timber and specialty products that will increase income and jobs.
- (2) Wild and Scenic Rivers Act of 1968. The Forest Service has lead responsibility for the Department of Agriculture relating to studies under the Wild and Scenic Rivers Act of 1968. In addition to the rivers assigned to the Department, the Forest Service coordinates USDA input to Interior-led studies. For fiscal year 1976, some work remains on the original 17 Interior-led studies. In addition, a number of rivers have been proposed for detailed study, under Section 5(a) of Wild and Scenic Rivers Act (PL 90-542). Funds are used to carry out the full Federal responsibility and to augment the States' efforts under the Act. These activities are needed to fulfill the Nation's demand for a quality environment.
- (3) Forest land aggregates. Many private nonindustrial forest landowners lack knowledge of forest management and marketing practices. Because of this, many of these ownerships are not managed to produce forest products beyond a level which accrues in unmanaged forest stands. A pilot test of aggregation to improve the effectiveness of technical assistance delivery and to provide management and marketing assistance to members of the aggregate organization through a private consulting forester is underway in Alabama.
- (4) Forest products utilization. State and Forest Service personnel, working closely with private consultants and university staff members are extending the Nation's supply of forest resources by determining new and better uses for logging and milling residues and low quality trees. For example, the processing and merchandising of sawdust, bark, and even twigs and needles, has expanded dramatically since foresters began analyzing the benefits of using these materials for soil amendments and as a mulch.

Examples of Recent Accomplishments

Sawmill improvement program. Computerized studies by Forest Service-State forester teams have shown over 300 sawmill owners in the United States how they can stretch the timber supply by producing more lumber from each log.

Under the sawmill improvement program, 304 sawmills producing 3.9 billion board feet of softwood lumber have been evaluated since June 1973. The production of these mills represents 12 percent of the Nation's annual output of softwood lumber. An individual analysis was given each mill after the team analyzed operations, gathered data, and fed the information into computers. The analyses reveal that 13.5 percent more lumber, amounting to 526 million board feet, could be produced at these mills from the same volume of sawlogs by improved bucking and sawing methods. If these mills also installed computerized sawing systems, they could get 36 percent more lumber, or 1.4 billion board feet.

This program has proven to be the most cost-effective short-range means of increasing lumber production of any of the several timber production programs of the Forest Service.

Consulting foresters and engineers have praised the Forest Service and cooperating State foresters for the efficient way in which the program has been conducted. Further, the program has been strongly endorsed by the Sierra Club as an effective means of reducing wastes of natural resources and utilizing more of the wood residues that were previously disposed of in a polluting manner.

A mill owner in the West recently commented that he would have had to close down his mill in this time of soft markets were it not for the increased efficiency he has obtained through the sawmill improvement program.

A mill owner in Louisiana, wrote, "This analysis gave me a new perspective in sawmill efficiencies with which I was not familiar.... May I commend the Forest Service for this excellent program and urge each mill operator to take advantage of it."

Washington State. A forest products specialist in the West assisted a manufacturer of wood arrow shafts to improve quality and volume of output. Assistance was provided in redesigning drying facilities which enabled the manufacturer to increase production from 2 to 6 million arrows. In so doing, much greater utilization is being made of dead Port-Orford cedar and employment of local labor has increased.

Pennsylvania. A study of logging areas in a section of Pennsylvania showed that as much as 50 percent of the usable material, an estimated 75 million board feet of logs, was being left in the woods. A concentrated effort by specialists and service foresters demonstrated the feasibility of using and marketing products from this material. As a result, \$1.2 million were invested in new and expanded manufacturing facilities providing markets for 9 million board feet of the wasted material.

Improved harvesting program. This program, implemented in fiscal year 1975, is designed to put more timber on the market through improved harvesting and utilization techniques. The program, which is being conducted through cooperating State foresters on a project basis, includes projects of the following nature:

- (1) Improved timber availability and access.
- (2) Multi-product logging.
- (3) Improved felling and bucking.
- (4) Utilization of recoverable wood from urban areas.
- (5) Timber salvage.

A computer program will be incorporated to analyze the efficiency of felling and bucking based on data obtained from actual logging operations.

Dry kiln demonstration anniversary. The 100th Dry Kiln Demonstration was held in 1974 at the Forest Products Laboratory in Madison, Wisconsin. The sessions began in 1919. Over the years, 2,300 kiln operators have been trained in the best methods of drying wood. Millions of dollars have been saved by reducing wood loss and energy expenditures and improving product performance for the consumer. Demand on the part of industry has increased to the extent that two sessions are held annually and each session is over-subscribed far in advance.

Forest inventory assistance. A consulting forestry firm in southern Alabama has adopted a method proposed by the Forest Service to check, cruise and determine final timber volumes through the use of a multistage inventory system. When all trees designated for cutting are marked, it is only required that each tree is counted and stratified by species or type. Final volumes are determined with a multistage sampling. The first stage is the physical variation of the trees marked.

The second stage is the sample. They feel that this method is faster than other methods because markers do not have to determine the volume of each tree as it is marked. They need only to count it. Final volumes are determined by qualified foresters in a very short time with a high degree of accuracy.

STANDARD FORM 304
May 1969, Bureau of the Budget
Circular No. A-11, Revised.
304-103

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST PROTECTION AND UTILIZATION
State and Private Forestry Cooperation
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 74 actual	1975 estimate	1976 estimate
05-96-1100-0-1-302			
FOREST SERVICE--Direct obligations:			
Personnel compensation:			
11.1 Permanent positions.....	2,870	3,516	3,585
11.3 Positions other than permanent.....	105	98	112
11.5 Other personnel compensation.....	6	5	5
11.8 Special personal services payments.....			
Total personnel compensation.....	2,981	3,619	3,702
Personnel benefits:			
12.1 Civilian.....	313	384	386
13.0 Benefits for former personnel.....			
21.0 Travel and transportation of persons.....	444	470	475
22.0 Transportation of things.....	33	50	50
23.0 Rent, communications, and utilities.....	61	175	285
24.0 Printing and reproduction.....	106	70	70
25.0 Other services.....	1,510	532	391
26.0 Supplies and materials.....	94	100	100
31.0 Equipment.....	113	30	30
32.0 Lands and structures.....			
33.0 Investments and loans.....			
41.0 Grants, subsidies, and contributions.....	22,204	24,433	24,733
42.0 Insurance claims and indemnities.....			
43.0 Interest and dividends.....			
44.0 Refunds.....			
.....			
direct			
99.0 Total obligations, Forest Service	27,859	29,863	30,222

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304-103

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST PROTECTION AND UTILIZATION
State and Private Forestry Cooperation
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
05-96-1100-0-1-302			
FOREST SERVICE--Reimbursable obligations:			
Personnel compensation:			
11.1 Permanent positions.....	39	24	24
11.3 Positions other than permanent.....	4	4	4
11.5 Other personnel compensation.....	8	2	2
11.8 Special personal services payments.....			
Total personnel compensation.....	51	30	30
Personnel benefits:			
12.1 Civilian.....	3	3	3
13.0 Benefits for former personnel.....			
21.0 Travel and transportation of persons.....	6	6	6
22.0 Transportation of things.....			
23.0 Rent, communications, and utilities.....			
24.0 Printing and reproduction.....	12	12	12
25.0 Other services.....	480	539	539
26.0 Supplies and materials.....	38	10	10
31.0 Equipment.....			
32.0 Lands and structures.....			
33.0 Investments and loans.....			
41.0 Grants, subsidies, and contributions.....			
42.0 Insurance claims and indemnities.....			
43.0 Interest and dividends.....			
44.0 Refunds.....			
Subtotal reimbursable obligations.....	590	600	600
99.0 Total obligations, Forest Service.....	28,449	30,463	30,822
			140

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST PROTECTION AND UTILIZATION
State and Private Forestry Cooperation
Personnel Summary

Identification code		1974 actual	1975 estimate	1976 estimate
05-96-1100-0-1-302				
FOREST SERVICE				
Direct:				
Total number of permanent positions		166	186	189
Full-time equivalent of other positions		14	13	13
Average paid employment		168	194	197
Reimbursable:				
Total number of permanent positions		1	1	1
Full-time equivalent of other positions		0	0	0
Average paid employment		1	1	1
Average GS grade		8.61	8.67	8.66
Average GS salary		\$14,322	\$15,147	\$15,174
Average salary of ungraded positions		\$11,174	\$11,794	\$11,794
(Mono cast: 21.5)		(Mono cast: 5)	(Mono cast: 5)	(Mono cast: 4)

FOREST SERVICE

FOREST PROTECTION AND UTILIZATION -- STATE AND PRIVATE FORESTRY COOPERATION

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976	:7/1-9/30/76
	:Estimate:	Estimate
State and private forestry cooperation:		
Cooperation in forest fire control	\$20,257	\$7,014
Cooperation in forest tree planting	337	50
Cooperation in forest management and processing	5,605	608
General forestry assistance	4,023	1,530
Total, State and private forestry cooperation	<u>30,222</u>	<u>9,202</u>

FOREST SERVICE

FOREST PROTECTION AND UTILIZATION -- STATE AND PRIVATE FORESTRY COOPERATION

Justification for Transition Period July 1-September 30, 1976

An estimate of \$9,202,000 is requested for State and private forestry cooperation programs which is about 30 percent of proposed funding at the fiscal year 1976 budget estimate of \$30,222,000. The 30 percent level is required for the transition period because of agreements with States which are honored during these three months. The relationship of the obligations and outlays for the period July 1 through September 30, 1974, to the total fiscal year 1975 program was used as a basis for determining the obligations and outlays for the transition period. The current rates were applied to the fiscal year 1976 program.

Through cooperative programs with State and local governments, forest industries, and private landowners, these funds will be used to protect and manage 631 million acres of forest and associated watershed land. Technical and financial assistance will be provided to improve fire control; to develop multiple use management so as to obtain optimum potential of forest resources; to improve harvesting, processing, and marketing of forest products; and to stimulate reforestation and timber stand improvement.

The activities proposed for funding are as follows (dollars in thousands):

Cooperation in forest fire control	\$7,014
Cooperation in forest tree planting	50
Cooperation in forest management and processing	608
General forestry assistance	<u>1,530</u>
Total	<u>9,202</u>

Major work planned in the transition period follows:

Woodland owners assisted	20,000
Forest products operators assisted	1,900
Incidental forestry assistance	25,000
Area of woodland involved	1,250,000 acres
Volume harvested under improved practices	50,000 MBF
	250,000 cords
Area of timber stand improvement	25,000 acres
Area planted or seeded	1,000 acres

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See page 88 for language and page 89 for Program and Financing schedule.

COOPERATIVE RANGE IMPROVEMENTS

Appropriation, 1974	<u>\$700,000</u>
Appropriation, 1975	<u>700,000</u>
Estimate, 1976	<u>700,000</u>

Part of the grazing fees from the National Forests, when appropriated, are used for revegetation of depleted rangelands, construction and maintenance of range improvements, rodent control, and eradication of poisonous plants and noxious weeds. These funds are advanced to and merged with the appropriation, Forest protection and utilization, subappropriation, Forest land management.

Section 12 of the Act of April 25, 1950, (Granger-Thye Act) provides that of the money received from grazing fees by the Treasury from each National Forest during each fiscal year there shall be available at the end thereof when appropriated by Congress an amount equivalent to 2 cents per animal month for sheep and goats and 10 cents per animal month for other kinds of livestock under permit on such National Forest during the calendar year in which the fiscal year begins.

Since figures for animal months permitted are not available until after more than one-half of the fiscal year for which funds are appropriated has elapsed, the 1976 appropriation request of \$700,000 necessarily represents the best current approximation of the amount which will become available in the calendar year 1975 under the animal-months-permitted formula.

For calendar year 1973, the latest available figures, animal months permitted were 6,634,222 for cattle and horses, and 3,979,181 for sheep and goats. This calculates to \$743,006 available under the formula.

Program and Financing (in thousands of dollars)

[illegible]

CONSTRUCTION AND LAND ACQUISITION

Appropriation, 1975	\$31,337,000
Estimate, 1976	14,475,000
Change	<u>-16,862,000</u>
Adjustments to 1975 appropriation:	
Appropriation Act, 1975	30,908,000
Proposed supplemental for increased pay costs	429,000
Adjusted base for 1976	<u>31,337,000</u>
Estimate, 1976	14,475,000
Change	<u>-16,862,000</u>

SUMMARY OF INCREASES AND DECREASES

(On basis of adjusted appropriation--dollars in thousands)

	Increase or Decrease (-)		Total	
	Permanent		Permanent	
	Amount	Full-time Positions	Total 1976 Estimate	Full-time Positions
<u>Construction for fire, administration, and other purposes</u> -The amount of \$2,465,000 is programed to construct projects necessary to support forest land management activities.	\$717	5	\$2,465	35
<u>Land acquisition, Weeks Act</u> --Decrease is due to non-recurring cost of land acquisition.	-56	- -	1,525	11
<u>All other</u> --Decreases are due to non- recurring construction projects.				
<u>Development of recreation-public use areas.</u>	-4,365	-18	556	22
<u>Water resource development con- struction.</u>	-1,595	-23	639	2
<u>Research construction.</u>	-3,957	- -	- -	4
<u>Pollution abatement.</u>	-7,606	-45	9,290	299
Total	<u>-16,862</u>	<u>-81</u>	<u>14,475</u>	<u>373</u>

PROJECT STATEMENT

(On basis of adjusted appropriation)

Project	1974	1975 Estimate	1976 Estimate	Increase or Decrease (-)	
				Pay :	
				Costs	Program
(1) Forest land management con- struction:					
(a) Development of recre- ation-public use areas:	\$1,075,000	\$4,921,000	\$556,000	\$14,000	-\$4,379,000
(b) Water resource develop- ment construction ...	169,000	2,234,000	639,000	14,000	-1,609,000
(c) Construction for fire, administration, and other purposes	1,103,000	1,748,000	2,465,000	59,000	658,000
(2) Research construction	5,708,000	3,957,000	- -	- -	-3,957,000
(3) Pollution abatement	17,738,000	16,896,000	9,290,000	183,000	-7,789,000
(4) Land Acquisition, Weeks Act	1,300,000	1,581,000	1,525,000	6,000	-62,000
Total appropriation	<u>27,093,000</u>	<u>31,337,000</u>	<u>14,475,000</u>	<u>276,000</u>	<u>-17,138,000</u>

PROJECT STATEMENT
(on obligation basis)

Project	1974	1975 Estimate	1976 Estimate	Increase or Decrease
(1) Forest land management construction				
(a) Development of recreation- public use areas	\$2,909,683	\$3,276,548	\$4,046,000	\$769,452
(b) Water resource development construction	1,805,030	2,552,720	639,000	-1,913,120
(c) Construction for fire, administration, and other purposes	2,224,803	1,769,293	2,465,000	695,707
(2) Research construction	4,123,581	3,582,933	3,375,000	-207,933
(3) Pollution abatement	28,788,565	24,466,159	9,290,000	-15,176,159
(4) Land Acquisition, Weeks Act ...	1,292,452	1,591,504	1,525,000	-66,504
Total obligations or estimate	41,144,114	37,239,157	21,340,000	-15,899,157
Unobligated balance brought forward	-26,818,271	-12,767,157	-6,865,000	5,902,157
Unobligated balance carried forward	12,767,157	6,865,000	- -	-6,865,000
Total available or estimate	27,093,000	31,337,000	14,475,000	-16,862,000
Supplemental appropriation	- -	-429,000		
Appropriation or estimate	27,093,000	30,908,000		

CONSTRUCTION AND LAND ACQUISITION

		Permanent full-time positions
Appropriation, 1974	\$27,093,000	512
Appropriation, 1975	31,337,000	454
Estimate, 1976	14,475,000	373
Change	<u>-16,862,000</u>	<u>-81</u>

A net decrease of \$16,862,000, with a decrease of 81 permanent full-time positions, is proposed as follows:

- (1) Increase of \$658,000 to construct projects necessary to support forest land management activities.
- (2) Increase of \$276,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.
- (3) Decrease of \$17,734,000 due to non-recurring construction projects.
- (4) Decrease of \$62,000 due to non-recurring cost of land acquisition.

The program provides for the construction and improvement of buildings, utilities, other physical facilities estimated to cost more than \$25,000, and land acquisition throughout the National Forests and National Grasslands. The financing for the numerous relatively minor construction projects is provided by the operating and research programs of which such minor construction items are an integral part.

- (1a) Development of recreation-public use areas (An appropriation decrease of \$4,365,000, with a decrease of 18 permanent full-time positions. On the basis of program level, there will be an increase of \$769,452 from the 1975 level of \$3,276,548. Projects recommended for deferral in 1975 will be constructed in 1976.)
- (1b) Water resource development construction (An appropriation decrease of \$1,595,000, with a decrease of 23 permanent full-time positions. On the basis of program level, there will be a decrease of \$1,913,720 from the 1975 level of \$2,552,720.)

GOAL: The Forest Service goal is to manage the recreation resource on National Forest lands to best serve the steadily increasing numbers of Americans seeking inspiration, enjoyment, and relaxation in the outdoors.

To meet this objective, items 1(a) and 1(b) will provide recreation and interpretive facilities on National Forest System lands to meet the most critical demands for diverse forest-based outdoor recreation opportunities. Design and construction will stress preserving environmental values, which make up a quality experience, and the needs of all people including the physical, economical, and socially disadvantaged. The most urgent and expanding urban needs will be served congruent with contributing to rural community stability.

The proposed program level will be matched to those projects reflecting the highest order of relative priority. The following activities are proposed with fiscal year 1976 funds:

	No. of Sites	
	Recreation- Public Use	Water Resource Development
(1) Plan new construction	1	3
(2) Complete construction previously started .	2	2
(3) Reconstruction of worn-out facilities	4	1
(4) Expansion	1	- -

The lists of proposed projects are included in Exhibits I and II.

- (1c) Construction for fire, administration, and other purposes (\$2,465,000, an appropriation increase of \$717,000, with an increase of 5 permanent full-time positions. On the basis of program level, there will be an increase of \$695,707 from the 1975 level of \$1,769,293.)

GOAL: To support the Forest Service land management programs by providing adequate structural improvement and communications necessary to achieve the program objectives.

Water and sanitation systems--to replace worn out, improve existing, or construct 5 new systems that will comply with Federal and State water quality standards at a total cost of \$227,000.

Specific project locations are as follows:

<u>State</u>	<u>Location</u>	<u>Amount</u>
Montana	Missoula	\$34,000
South Dakota	Harding (two systems)	109,000
Oregon	Jackson Co.	33,000
Mississippi	Brooklyn	51,000

Ranger district offices-- Fire and security improvements to be constructed at Cass Lake, Minnesota, to improve public safety at a cost of \$102,000.

Dwellings--Eleven to be constructed at a total cost of \$555,000 in rural and isolated locations where rental housing is not available. They will be located as follows:

<u>State</u>	<u>Location</u>	<u>Amount</u>
Arizona	Alpine	\$39,000
Oregon	Umatilla Co.	103,000
Alaska	Sitka	206,000
Alaska	Petersburg	207,000

Communications system (radios and telephones)--Eight systems will be improved through new construction or upgrading existing systems at a total cost of \$1,160,000 at the following locations:

<u>State</u>	<u>Location</u>	<u>Amount</u>
Montana	Regionwide	\$25,000
Arizona	Yavapai Co.	30,000
Idaho	Sawtooth National Forest	140,000
California	Regionwide	179,000
California	Lake Tahoe Basin	209,000
13 S.E. States	Regionwide	180,000
Alaska	Regionwide	290,000
Wyoming	West Central	107,000

Airport projects--Three projects, at a cost of \$325,000, needed for protection of the National Forests from wild fire.

<u>State</u>	<u>Location</u>	<u>Amount</u>
New Mexico	Silver City	\$63,000
New Mexico	Otero Co.	33,000
Oregon	Wallowa Co.	229,000

Special project--To move corrals and trailers on the Flathead National Forest in Montana at a cost of \$96,000 to correct public health and safety hazards.

Examples of Recent Accomplishments

The following units were constructed or reconstructed or construction contracts awarded in fiscal year 1974:

<u>Units</u>	<u>No.</u>
Water and sanitation systems	27
Communication systems upgraded and modernized	13

- (2) Research construction (No funds are requested, an appropriation decrease of \$3,957,000. On basis of program level, there will be a decrease of \$207,933 from the 1975 program level of \$3,582,933. No change in permanent full-time positions is proposed. Projects recommended for deferral in 1975 will be constructed in 1976.)
- (3) Pollution abatement (\$9,290,000, an appropriation decrease of \$7,606,000 with a decrease of 45 permanent full-time positions. On the basis of program level, there will be a decrease of \$15,176,159 from the 1975 level of \$24,466,159.)

GOAL: To reduce air and water pollution from existing Forest Service facilities consistent with State air and water quality standards as required by E.O. 11507, E.O. 11752, and PL 92-500.

The program decrease is the result of finalization of the efforts initiated under E.O. 11507 and deferred to take advantage of joint disposal facilities in cooperation with local authorities. Of the total program, \$1,804,000 will be used as follows to complete deferred projects:

Project construction engineering	\$380,000
Bass Lake sewer lines and cooperative agreement with Madera County, California, sewer district. This increase brings the total project funding for fiscal years 1975-1976 to \$3,708,000 on final designs and county contract awards.	1,424,000

This will complete all work under requirements of E.O. 11507.

The balance of the program is to initiate work required by PL 92-500 and E.O. 11752 and related State and Federal standards promulgated by that Act. Such action will include investigation of both point and non-point discharges, including establishment of monitoring and surveillance systems and corrective action on 38 identified deficient National Forest administrative sites and approximately 138 recreation sites. Where corrective action on previously unidentified sites is found to be necessary, funds will be used for thorough analysis and preliminary design.

Proposed Program

(a) Point discharge evaluation and design	\$2,512,900
(b) Non-point monitoring, evaluation, and design	1,990,000
(c) Correct deficient administrative site	1,473,100
(d) Correct deficient recreation sites	3,264,000
(e) Air pollution monitoring	50,000
Total	9,290,000

Pollution abatement and prevention requirements previously aimed largely at point source discharges have been broadened by PL 92-500 to include non-point or dispersed sources. The proposed program would provide for the

surveillance of development and use activities on National Forest System lands and the planning, design and technical supervision of procedures for the abatement of identified non-point sources. Examples of activities or uses which have the potential for environmental pollution are construction, mining, recreation, grazing, road construction, and those activities associated with timber management.

The information obtained through surveillance is used to:

- (a) Help identify pollution sources.
- (b) Provide the facts needed for determining:
 - (1) Uses for which the water is suited.
 - (2) When quality of water has dropped below standards for particular uses.
 - (3) Practical water quality goals.
 - (4) The effectiveness of current management practices in meeting water quality goals.
 - (5) Design criteria for future management action to meet established water quality goals.

Abatement procedures include the development of operating guidelines, land treatment measures, training of personnel, and closer supervision of activities having a high potential for non-point pollution.

These programs are vitally needed to protect and maintain the resources and environment of the National Forests. They will:

- (a) Help prevent a general degradation of the National Forests.
- (b) Insure a continued flow of high quality water for domestic and irrigation use.
- (c) Help realize the 1985 National goal to eliminate the discharge of pollutants into navigable waters of the United States.

Air pollution abatement--An amount of \$50,000 will be used to comply with the Clean Air Act and EPA rural non-degradation regulations in the Sierra-Nevada Mountain Air Basin of California. Specific high-use mountain basins will be monitored. Vehicle control measures will be determined for designated land use areas such as Kirkwood Meadows Ski Area and Mineral King Development.

- (4) Land acquisition, Weeks Act (\$1,525,000, an appropriation decrease of \$56,000. On the basis of program level, a decrease of \$66,504 is proposed below the 1975 level of \$1,591,504. No change in permanent full-time positions is proposed.)

GOAL: Acquisition of land to protect headwaters of navigable streams against land abuse, and for production of timber

The \$1,525,000 will be used to acquire an estimated 6,000 acres in the Red-bird Purchase Unit in eastern Kentucky at a cost of \$581,820. The remaining \$943,180 will be used to continue the acquisition programs in purchase units in the eastern United States, plus a minor program in Nebraska. These funds will be used to acquire properties of high priority that are expected to be available in fiscal year 1976. Emphasis is given in this part of the program to the National Forests in Arkansas, Illinois, Michigan, Missouri, and Ohio.

The acquisition of key inholdings within the National Forests and the National Forest purchase units becomes increasingly urgent as the demands upon wild-lands and farm lands for highway construction, industrialization, and summer home development increase. The development program for the National Forests recognizes the need to acquire additional private inholdings in need of land rehabilitation. Included are lands depleted by repeated fires, poor logging practices, clearing and cultivation of steep and erodible mountain lands, disturbed mineral exploitation areas, and submarginal or marginal farms that should be removed from farming operations and managed for timber production and/or grazing. These are lands located primarily in economically depressed

areas. In the past 5 years land costs have approximately doubled. In addition, payments required by PL 91-646 and increased costs of doing business results in less acreage acquired per dollar expended. At the current funding level fewer acres will be acquired each year. Sound management of acquired areas will contribute to:

- (a) Stabilization of the local economy.
- (b) Environmental enhancement.
- (c) Prevention of stream pollution in rural America.
- (d) Improved timber production.

Lands primarily valuable for recreation are not included in this program, since acquisition of such lands is financed under the Land and Water Conservation Fund.

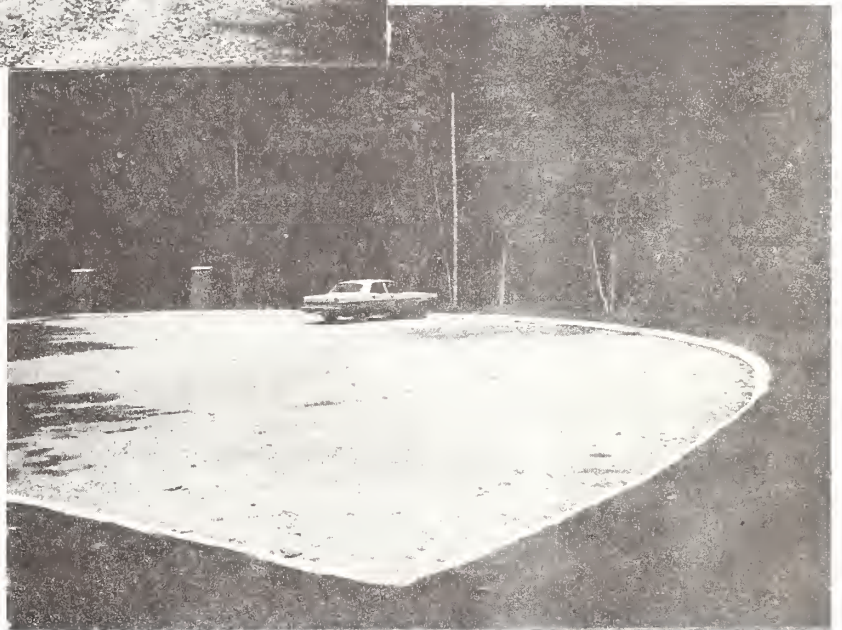
See the tabulation at the end of this section for more detailed information on the actual and planned accomplishments in fiscal years 1974-1976 (Exhibit III).

Examples of Recent Accomplishments

In 1974, a total of 116 tracts were contracted for purchase under authority of the Weeks Act using regular appropriated Weeks Act funds. These cases involved the acquisition of 12,085 acres at a total cost of \$1,292,452. These transactions involve lands suited to timber production and watershed protection in areas where National Forest ownership needs to be consolidated or extended to facilitate these programs. Many of the smaller parcels, 20-40-80 acres in size, are purchases made at a price equal to, or nearly equal to, the cost that would otherwise have been incurred to survey, post, and mark the National Forest boundary surrounding the property.



Typical site before construction



After construction

Figure 50

EXHIBIT I -- RECREATION-PUBLIC USE -- FY 1976
Capital Investments -- Distribution by National Forests

<u>State, Forest, and Project</u>	<u>PAOT Capacity</u>	<u>Total Cost</u>	<u>Projected Visitor- Day Use</u>
<u>Oregon</u>			
Mt. Hood (Multnomah Falls Lodge)	700	\$185,000	150,000(A)
Siuslaw (Cape Perpetua Campground)	685	10,000	14,400(A)
<u>Virginia</u>			
Jefferson (East Stoney Fork Campground)	400	169,000	25,000(I)
<u>South Carolina</u>			
Chattahoochee (Burrells Ford Boat Ramp)	50	20,000	15,000(A)
<u>Michigan</u>			
Ottawa (Black River Harbor Campground)	235	39,000	41,000(A)
<u>Minnesota</u>			
Chippewa (Norway Beach Campground)	310	71,000	25,000(I)
Superior (Cane Lake - Entry to Boundary Water Canoe Area)	200	27,000	18,000(I)
<u>Missouri</u>			
National Forests - Missouri (11 Point Wild and Scenic River Float Camps)	90	35,000	40,000(A)
Total	2,670	556,000	260,400(A) 68,000(I)

EXHIBIT II -- WATER RESOURCE DEVELOPMENT CONSTRUCTION -- FY 1976
Capital Investments -- Distribution by National Forests

<u>State, Forest, and Project</u>	<u>PAOT Capacity</u>	<u>Total Cost</u>	<u>Projected Visitor- Day Use</u>
<u>Colorado</u>			
Pike (Rampart Reservoir - Day use facilities)	150	\$53,000	11,000(I)
San Isabel (Turquoise Reservoir - Baby Doe and Bell of Colorado Campground)	235	108,000	18,000(I)
San Isabel (Twin Lakes Reservoir - Visitor Information Center)	100	6,000	3,000(I)
<u>Utah</u>			
Ashley (Flaming Gorge NRA - Carmel Campground)	300	24,000	14,000(A)
<u>Arkansas</u>			
Ouachita (Lake Hinkel Reservoir - Recreation Complex)	550	338,000	212,500(I)
<u>Pennsylvania</u>			
Allegheny (Allegheny Reservoir Tracy Ridge Picnic Ground, water and sewer lagoon)	600	110,000	24,000(I)
Total	1,935	639,000	14,000(A) 268,500(I)

PAOT--persons-at-one-time
(A)--Affected, no increase
(I)--Increased use

EXHIBIT III - WEEKS ACT PURCHASES 1974-1976

(Dollars in thousands)

	Fiscal Year 1974			Fiscal Year 1975			Fiscal Year 1976		
	Options Accepted	Acres	Obliga- tion	Options to be Accepted	Acres	Obliga- tion	Options to be Accepted	Acres	Obliga- tion
<u>Alabama</u>									
Talledega ...	1	73	\$12.8	- -	- -	- -	2	80	\$20.0
<u>Arkansas</u>									
Ozark	5	452	68.4	9	500	\$70.0	8	650	96.9
<u>Illinois</u>									
Shawnee	3	642	56.8	10	800	100.0	9	600	70.0
<u>Indiana</u>									
Hoosier	12	1,161	159.3	10	1,000	138.0	8	700	100.0
<u>Kentucky</u>									
Redbird Purchase Unit	49	6,458	583.2	48	7,200	688.7	40	6,000	581.8
<u>Michigan</u>									
Hiawatha	2	480	27.8	2	160	10.0	2	135	8.0
Huron-Manistee	9	329	40.3	8	320	40.0	8	360	45.0
Ottawa	5	234	16.3	2	140	10.0	3	200	15.0
<u>Minnesota</u>									
Chippewa	6	330	17.9	4	180	10.0	4	180	10.0
Superior	- -	- -	- -	- -	- -	- -	2	120	6.0
<u>Missouri</u>									
Clark	8	341	35.7	12	650	69.0	5	300	35.0
Mark Twain ..	2	139	18.7	5	220	30.0	5	250	35.0
<u>Nebraska</u>									
Nebraska	1	220	17.6	1	230	19.0	1	420	50.0
<u>New Hampshire</u>									
White Mountain	- -	- -	- -	- -	- -	- -	1	130	13.0
<u>Ohio</u>									
Wayne	8	493	51.1	10	500	54.0	15	950	100.0
<u>South Carolina</u>									
Sumter	- -	- -	- -	- -	- -	- -	1	60	8.0
<u>Virginia</u>									
George Washington	2	88	12.7	- -	- -	- -	5	250	40.0
<u>West Virginia</u>									
Monongahela .	1	325	37.2	- -	- -	- -	2	250	25.0
<u>Wisconsin</u>									
Chequamegon .	- -	- -	- -	2	400	37.5	1	150	10.0
Nicolet	2	320	21.0	8	750	48.5	2	160	8.0
Subtotal ..	116	12,085	1,176.8	131	13,050	1,324.7	124	11,945	1,276.7
Surveys and related acquisition costs			115.7			277.3			248.3
Unobligated balance carried forward			10.5			- -			- -
Unobligated balance brought forward			-3.0			-10.5			- -
Total appropriation			<u>1,300.0</u>			<u>1,591.5</u>			<u>1,525.0</u>

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
CONSTRUCTION AND LAND ACQUISITION
Program and Financing (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
05-96-1103-C-1-302			
<u>Program by activities:</u>			
1. Forest land management construction	6,169	7,306	7,586
2. Research construction	2,032	4,374	1,839
3. Pollution abatement	25,655	26,886	19,090
4. Land acquisition, Weeks Act	1,100	1,513	1,525
Total direct program	34,956	40,079	30,040
Total reimbursable program .	138	250	250
Total program costs, funded 1/	35,094	40,329	30,290
Change in selected resources (undelivered orders)	6,168	-2,840	-8,700
10 Total obligations	41,262	37,489	21,590
<u>Financing:</u>			
Receipts and reimbursements from:			
11 Federal funds	-113	-200	-200
14 Non-Federal sources	-25	-50	-50
21 Unobligated balance available, start of year	-26,818	-12,767	-6,865
24 Unobligated balance available, end of year	12,767	6,865	.....
40 Budget authority (appropriation)	27,093	30,908	14,475
44.20 Proposed supplemental for civilian pay raises .....	.....	429	.....
<u>Relation of obligations to outlays:</u>			
71 Obligations incurred, net	41,144	37,239	21,340
72 Obligated balance, start of year	18,984	26,303	14,450
74 Obligated balance, end of year	-26,303	-14,450	-11,873
90 Outlays, excluding pay raise supplemental	33,825	48,700	23,880
91.20 Outlays from civilian pay raise supplemental .....	.....	392	37
1/ Includes capital outlay as follows: thousand; 1976, \$20,000 thousand.	1974, \$23,047 thousand;	1975, \$26,500	
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DEPARTMENT OF AGRICULTURE
FOREST SERVICE
CONSTRUCTION AND LAND ACQUISITION

A-11-34b

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 74 actual	19 75 estimate	19 76 estimate
05-96-1103-0-1-302			
FOREST SERVICE--Direct obligations:			
Personnel compensation:			
11.1 Permanent positions	7,429	7,031	5,675
11.3 Positions other than permanent	2,132	2,396	2,050
11.5 Other personnel compensation	246	290	215
11.8 Special personal services payments	1	2	.....
Total personnel compensation	9,808	9,719	7,940
Personnel benefits:			
12.1 Civilian	917	930	750
13.0 Benefits for former personnel	3	.....	.....
21.0 Travel and transportation of persons	366	261	175
22.0 Transportation of things	409	350	180
23.0 Rent, communications, and utilities	286	240	125
24.0 Printing and reproduction	47	50	20
25.0 Other services	4,990	4,305	1,195
26.0 Supplies and materials	1,562	1,325	700
31.0 Equipment	2,809	2,400	1,270
32.0 Lands and structures	19,945	16,900	9,000
33.0 Investments and loans			
41.0 Grants, subsidies, and contributions			
42.0 Insurance claims and indemnities	4	.....	.....
43.0 Interest and dividends Subtotal	41,146	36,480	21,355
95.0 Quarters and subsistence charges	-27	-25	-15
44.0 Refunds			
Total direct obligations, Forest Service	41,119	36,455	21,340
Total reimbursable obligations, Forest Service (25.0 Other Services)	138	250	250
<u>99.0</u> Total obligations, Forest Service	41,257	36,705	21,590

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
CONSTRUCTION AND LAND ACQUISITION

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 74 actual	19 75 estimate	19 76 estimate
05-96-1103-0-1-302			
GENERAL SERVICES ADMINISTRATION			
Personnel compensation:			
11.1 Permanent positions			
11.3 Positions other than permanent			
11.5 Other personnel compensation			
11.8 Special personal services payments			
Total personnel compensation			
Personnel benefits:			
12.1 Civilian			
13.0 Benefits for former personnel			
21.0 Travel and transportation of persons	2	16	.....
22.0 Transportation of things			
23.0 Rent, communications, and utilities			
24.0 Printing and reproduction	.....	4	.....
25.0 Other services	2	26	.....
26.0 Supplies and materials			
31.0 Equipment			
32.0 Lands and structures	21	738	.....
33.0 Investments and loans			
41.0 Grants, subsidies, and contributions			
42.0 Insurance claims and indemnities			
43.0 Interest and dividends			
44.0 Refunds			
Total obligations, General Services Administration	25	784
99.0 Total obligations	41,282	37,489	21,590

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DEPARTMENT OF AGRICULTURE
FOREST SERVICE
CONSTRUCTION AND LAND ACQUISITION

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 74 actual	1975 estimate	19 76 estimate
05-96-1103-0-1-302			
GENERAL SERVICES ADMINISTRATION			
Personnel compensation:			
11.1 Permanent positions			
11.3 Positions other than permanent			
11.5 Other personnel compensation			
11.8 Special personal services payments			
Total personnel compensation			
Personnel benefits:			
12.1 Civilian			
13.0 Benefits for former personnel			
21.0 Travel and transportation of persons	2	16	.....
22.0 Transportation of things			
23.0 Rent, communications, and utilities			
24.0 Printing and reproduction .....	.....	4	.....
25.0 Other services	2	26	.....
26.0 Supplies and materials			
31.0 Equipment			
32.0 Lands and structures	21	738	.....
33.0 Investments and loans			
41.0 Grants, subsidies, and contributions			
42.0 Insurance claims and indemnities			
43.0 Interest and dividends			
44.0 Refunds			
Total obligations, General Services Administration	25	784
99.0 Total obligations	41,282	37,489	21,590

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DEPARTMENT OF AGRICULTURE
FOREST SERVICE
CONSTRUCTION AND LAND ACQUISITION

A-11-34b

Personnel Summary

Identification code 05-96-1103-0-1-302	1974 actual	1975 estimate	1976 estimate
Total number of permanent positions ..	572	454	373
Full-time equivalent of other positions	259	268	229
Average paid employment	746	703	583
Average GS grade	8.61	8.67	8.66
Average GS salary	\$14,322	\$15,147	\$15,174
Average salary of ungraded positions .	\$11,174	\$11,794	\$11,794

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158
(Mono cast: 4.9)

FOREST SERVICE

CONSTRUCTION AND LAND ACQUISITION

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976	:7/1-9/30/76
	:Estimate:	Estimate
CONSTRUCTION AND LAND ACQUISITION:		
Development of recreation-public use areas	\$556	\$505
Water resource development construction	639	505
Construction for fire, administration and other purposes ..	2,465	1,512
Research construction	-	-
Pollution abatement	9,290	8,050
Land acquisition, Weeks Act	1,525	502
TOTAL, CONSTRUCTION AND LAND ACQUISITION	14,475	11,074

FOREST SERVICE

CONSTRUCTION AND LAND ACQUISITION

For construction and acquisition of buildings and other facilities required in the conservation, management, investigation, protection and utilization of national forest resources, point discharge monitoring and evaluation, and non-point discharge surveillance monitoring and evaluation, and the acquisition of lands and interests therein necessary to these objectives, ~~[\$30,908,000]~~ \$14,475,000, to remain available until expended: *Provided*, That not more than ~~[\$1,576,000]~~ \$1,525,000 of this appropriation may be used for acquisition of land under the Act of March 1, 1911, as amended (16 U.S.C. 513-519).

For "Construction and land acquisition" for the period July 1, 1976, through September 30, 1976, \$11,074,000, to remain available until expended. (7 U.S.C. 428a, 1012, 2260; 16 U.S.C. 476, 513-519a, 528-531; 86 Stat. 816; Department of the Interior and Related Agencies Appropriation Act, 1975.)

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
CONSTRUCTION AND LAND ACQUISITION

Program and Financing (in thousands of dollars)

Identification code		Program and Financing		Expenditures in thousands of dollars	
05-96-1103-0-1-302		7/1-9/30/76		7/1-9/30/76	
Program by activities:					
1.	Forest land management construction	3,522			
2.	Research construction	3,000			
3.	Pollution abatement	7,050			
4.	Land acquisition, Weeks Act	1,002			
Total program costs, funded					
1/	.....	14,574			
Change in selected resources (undelivered orders)		-3,500			
10	Total obligations	11,074			
40	Budget authority (appropriation)	11,074			
Relation of obligations to outlays:					
71	Obligations incurred, net	11,074			
72	Obligated balance, July 1	11,873			
74	Obligated balance, September 30	-8,087			
90	Outlays	14,860			
1/ Includes capital outlay as follows:		\$9,500 thousand.			

FOREST SERVICE
CONSTRUCTION AND LAND ACQUISITION

Justification for Transition Period July 1-September 30, 1976

Amount
Requested
(in thousands)

Development of recreation-public use areas \$505

Following projects are proposed for construction in the transition period:

<u>State, Forest, and Project</u>	<u>PAOT Capacity</u>	<u>Total Cost (in thousands)</u>	<u>Projected Visitor-Day Use</u>
<u>California</u>			
Tahoe (Oregon Creek Campground) 2/	190	\$190	22,600 (A)
Cleveland (San Luis Rey Picnic Ground) 2/	100	20	6,000 (A)
<u>Michigan</u>			
Ottawa (Black River Harbor Campground) 2/	235	70	41,000 (A)
<u>West Virginia</u>			
Monongahela (Seneca Rocks Visitor Center) 1/	200	275	25,000 (A)
Total	725	505	94,600

Water resource development construction \$ 505

Following projects are proposed for construction in the transition period:

<u>State, Forest, and Project</u>	<u>PAOT Capacity</u>	<u>Total Cost (in thousands)</u>	<u>Projected Visitor-Day Use</u>
<u>Illinois</u>			
Shawnee (Kinkaid Reservoir-Johnson Creek Recreation Area) 1/		\$50	
<u>Indiana</u>			
Wayne-Hoosier (Celina Lake Recreation Area-- boat ramp, water and sewer system) 1/	100	200	19,000 (I)
<u>Ohio</u>			
Wayne-Hoosier (Leith Run--Willow Bay boat launch) 1/	250	42	8,000 (I)
<u>Minnesota</u>			
Chippewa (Knutson Reservoir) 2/		32	30,000 (A)
<u>Pennsylvania</u>			
Allegheny (Allegheny Reservoir--5 miscel- laneous sites) 2/	300	83	24,000 (A)
<u>Wyoming</u>			
Ashley (Flaming Gorge--Buckboard Campground, Sheep Creek boating site) 2/		98	15,000 (A)
Total	650	505	96,000

1/ New--continuation of project previously started.

2/ Reconstruction.

(A) Affected (no increase).

(I) Increased use.

Amount
Requested
(in thousands)

Construction for fire, administration and other purposes \$1,512

The following new starts are proposed:

<u>Project</u>	<u>Location</u>	<u>Amount</u>
Office	Powell Ranger District, Idaho County, Idaho	\$195
Office	LaCroix Ranger District, Cook, Minnesota ..	392
Dwelling and Water System	Mountain City Ranger District, Mountain City, Nevada	44
Office Addition ..	Orleans Ranger District, Orleans, California	242
Work Center	Afognak Island, Alaska	633
Water System (begin plan- ning and design)	Umpqua, Lane County, Oregon	6
Total		<u>1,512</u>

Pollution abatement \$8,050

Funds will be used for work required by PL 92-500 and E.O. 11752 and related State and Federal standards promulgated by that Act. Proposed program follows:

	<u>Amount</u>
Point discharge evaluation and design	\$1,050
Non-point monitoring, evaluation, and design	690
Correct deficient administrative sites	1,000
Correct deficient recreation sites	5,310
Total	<u>8,050</u>

Land acquisition, Weeks Act \$502

<u>State--Forest</u>	<u>Options to be Accepted</u>	<u>Acres</u>	<u>Amount (in thousands)</u>
Illinois--Shawnee	2	160	\$25
Indiana--Hoosier	2	175	25
Kentucky--Redbird Purchase Unit	6	250	200
Michigan--Huron-Manistee	2	180	20
Ottawa	3	200	15
Missouri National Forests	10	500	50
Nebraska--Nebraska	1	420	55
Ohio--Wayne	4	235	25
West Virginia--Monongahela	2	160	10
Subtotal	32	2,280	425
Surveys and related acquisition costs .			77
Total			<u>502</u>

The levels of funding proposed above for construction for the transition period are not pro rata of the fiscal year 1976 request because of the seasonal nature of the work.

FOREST ROADS AND TRAILS

		1/ Permanent full-time positions
Appropriation, 1974	\$97,700,000	4,332
Estimate, 1975	124,578,000	4,535
Estimate, 1976	108,225,000	4,441
Change	<u>-16,353,000</u>	<u>-97</u>

Adjustments to 1975 appropriation:

Appropriation Act, 1975	\$120,864,000
Proposed supplemental for increased pay costs	3,714,000
Adjusted base for 1976	124,578,000
Estimate, 1976	108,225,000
Change	<u>-16,353,000</u>

PROJECT STATEMENT

The following tabulation reflects the total program for the construction and maintenance of roads and trails on the National Forests and Grasslands by combining the funds available under the appropriation "Forest roads and trails" with the permanent appropriation of 10 percent of National Forest receipts.

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
1. Construction of roads and trails	\$90,419,370	\$119,036,000	\$115,194,000	-\$3,842,000
2. Maintenance of roads and trails	40,635,182	40,070,000	43,344,000	3,274,000
Total obligations ..	131,054,552	159,106,000	158,538,000	-568,000
Transfer from Roads and Trails for States a/	-45,468,547	-47,003,064	-47,975,000	-971,936
Program under Forest Roads and Trails contract authority	85,586,005	112,102,936	110,563,000	-1,539,936
Obligations incurred under unfunded contract authority	12,113,995	12,475,064	-2,338,000	-14,813,064
Total available or estimate:	97,700,000	124,578,000	108,225,000	-16,353,000
Supplemental appropriation :	- -	-3,714,000		
Appropriation or estimate :	97,700,000	120,864,000		

a/ The annual appropriation language and the Department presentation combine the appropriation for Forest roads and trails made pursuant to 23 USC 205 and the appropriation of 10 percent of forest receipts for construction and maintenance of roads and trails pursuant to 16 USC 501. This merger of funds is made in order to simplify the programing, allotment, and accounting of funds at the field level.

A decrease of \$16,353,000 is proposed to meet cash requirements for liquidation of contract authority. This appropriation provides for the liquidation of obligations incurred for the construction and maintenance of forest roads and trails pursuant to the authority contained in the Federal-Aid Highway Act. An appropriation of \$108.2 million for 1976 is required to:

(1) Pay for obligations of the prior years which will be due for payment in fiscal year 1976.

(2) Pay the portion of the 1976 obligations of \$110.6 million contract authority which will require cash payment in that year.

1/ Excludes following positions in the Department of Transportation that receives funds from the Forest Service: 1974, 7; 1975, 7, 1976, 7.

A decrease of 97 Forest Service permanent full-time positions is also proposed.

GOAL: To provide and maintain efficiently the transportation system needed to accomplish the land and resource protection, management, and utilization goals for the National Forests; and to provide, maintain, and operate efficiently the National Forest trail system for recreation and other purposes.

Following is a summary of three years of road and trail construction and maintenance. A comparison is shown of the work to be undertaken in fiscal year 1976 as compared to fiscal year 1975 (dollars in thousands).

	<u>FY 1974</u>		<u>FY 1975</u>		<u>FY 1976</u>		<u>Change</u>	
	<u>Miles</u>	<u>Amount</u>	<u>Miles</u>	<u>Amount</u>	<u>Miles</u>	<u>Amount</u>	<u>Miles</u>	<u>Amount</u>
Recurrent road maintenance	78,834	\$35,646	97,157	\$34,505	96,630	\$37,665	-527	+\$3,160
Recurrent trail maintenance	28,256	4,990	41,062	5,565	30,700	5,679	-10,362	+114
Road construction ...	36	8,286	136	15,716	142	6,379	+6	-9,337
Trail construction ..	358	3,363	298	3,200	270	3,112	-28	-88
Location, surveys, plans, and supervision (timber purchaser roads)	9,400	70,470	8,427	85,162	10,938	93,444	+2,511	+8,282
Supplementing timber purchaser construction	120	3,333	350	8,863	238	6,794	-112	-2,069
Bridge construction and reconstruction for timber access ..	<u>No.</u> 62	4,967	<u>No.</u> 154	6,095	<u>No.</u> 87	5,465	<u>No.</u> -67	-630
Totals		131,055		159,106		158,538		-568

The budget proposal will provide for the Forest Service to handle the engineering road survey work on at least 75 percent of the total volume of timber scheduled for sale in fiscal year 1976 and to retain control of the location and design work on permanent roads. The program will provide funding of access bridge construction and replacement to support the timber program. The estimated mileage of road surveys for timber sale needs of construction and reconstruction will be increased by 2,511 miles in fiscal year 1976. This is necessary to meet and maintain volumes of timber advertised for sale in fiscal year 1976 and beyond at the timber sale preparation program level.

Funding for construction of roads by Forest Service public works contracts will be reduced \$9,337,000. Emphasis will be on support activities for the timber purchaser road program and purchaser construction through timber credit allowances rather than direct Federal construction. This will help to meet the immediate challenge of increasing timber needs and will assist in maintaining annual Federal outlays at a reduced level. This will achieve the short-term goals of the timber resource program. No all-purpose or recreation roads will be built.

The proposed program provides for maintenance and environmental protection of essential roads and trails on the existing transportation system. Road use regulation and closure policies will continue to be implemented consistent with resource management objectives. Lightly used roads will be closed to traffic between entries for management purposes to minimize outlays and to prevent resource damage.

Requested road supplemental funds (\$6,794,000) will be used in conjunction with timber credit allowance to construct environmentally sound timber roads for access to new timber sales in areas of steep slopes, critical soils, sensitive watersheds, and timber stands needing immediate thinning or salvage. The funds are the minimum estimated to be necessary to provide access to meet the fiscal year 1976 goals.

As part of the timber system, large areas of National Forest land need road system development to reach a more intensive management status. In addition, many older, low standard roads cannot adequately or safely handle today's vehicle sizes or numbers. A necessity for proper sale scheduling which could include new road construction and/or reconstruction of older roads is professional road engineering. This consists of

investigations for the best road location, survey and design of road plans. This work should be done before advertising a timber sale. Congress has directed, and the Forest Service has agreed, to do at least 75 percent of this presale engineering work. Current economic conditions reflect an increasing need for the Forest Service to contribute to road construction costs and also to uphold its share of the responsibility for needed road maintenance. Adequate engineering funds will help insure meeting the planned timber program, and also enable the Forest Service to protect investments in National Forest lands.

National Trail System development authorized by PL 90-543 will be implemented under the proposed funding. This will assist in providing for the present heavy public travel over inadequate and unsafe, heavy-use trails in some areas of the National Forests. Top priority will be given to construction of the Pacific Crest and Appalachian National Scenic Trails, next priority will be given to National Recreation Trail candidates, and then priority to construction of heavy-use trails not part of the National Trail System. This program will provide for safe use of many identified heavy-used trails while protecting soil and watershed and esthetic values in scenic and recreation areas.

The planned maintenance, construction, and engineering services will be in accord with the National Environmental Policy Act (NEPA). This Act requires full consideration of the services to, and the effect upon, all resources by development of roads, trails, and other facilities. All alternate means of access must be investigated and their desirability, feasibility, and impacts carefully weighed before a decision to construct is made. This continues to increase costs due to extending the time between project conception and completion and it requires extensive analysis and review during the planning process with full utilization of technical expertise.

The work will be designed, and facilities constructed and administered, under provisions of the Highway Safety Act that made all Highway Standards effective February 15, 1973 (23 CFR II). This requires implementation of traffic engineering services and techniques, including traffic control devices, seasonal closure, and other management techniques for roads to insure public safety.

The proposed program provides for continuing implementation of the bridge standards under the Federal-Aid Highway Act of 1968. Implementation of the Act involves aggressively continuing corrective actions on those fatigued and otherwise defective bridges. This results in added costs for inspections, maintenance, reconstruction, or in closure and rerouting over longer routes of access to assure public safety.

The following tabulation shows the current status of the Forest Roads and Trails System and project needs:

	<u>Existing Mileage</u>	<u>Estimated Mileage Needing Reconstruction</u>	<u>Estimated Additional Mileage Needed</u>
Forest development roads	201,317	139,300	135,840
Forest development trails	96,393	45,577	23,895

	<u>Construction</u>					
	<u>By the Government</u>			<u>By Timber Purchaser</u>		
	<u>FY 1974</u>	<u>FY 1975</u>	<u>FY 1976</u>	<u>FY 1974</u>	<u>FY 1975</u>	<u>FY 1976</u>
Roads (miles)	36	136	142	7,080	8,427	9,620
Trails (miles)	358	298	270	- -	- -	- -

Status of Unfunded Authorizations

Unfunded contract authority beginning of 1975	\$485,759,000
Federal-Aid Highway Act of 1973 (1976 authority available in 1975) .	140,000,000
Appropriation, 1975	-124,578,000
Unfunded contract authority rescinded (PL 93-529, 12/21/74)	-61,611,000
Total unfunded beginning of 1976	<u>439,570,000</u>
Unfunded contract authority lapsing, June 30, 1976	-25,723,000
1976 Budget estimate (cash requirements)	-108,225,000
Balance to remain unfunded as of June 30, 1976	<u><u>305,622,000</u></u>

Analysis of Cash Requirements

1. Unliquidated obligations, June 30, 1974	\$51,317,492
2. Estimated cash requirements to finance 1975 program	<u>88,499,900</u>
3. Total cash requirements by June 30, 1975	139,817,392
4. Less cash on hand 1975: Balance from 1974	15,558,392
Cash on hand June 30, 1975 .	-319,000
Appropriation, 1975	<u>124,578,000</u>
5. Obligations in 1975 and prior years for which cash was not provided in items 1 and 2	<u>139,817,392</u> 20,000,000
6. Estimated cash required to finance 1976 program	<u>a/ 83,225,000</u>
7. Reserve	<u>5,000,000</u>
8. Total cash required in 1976	<u><u>108,225,000</u></u>

a/ An estimated 75 percent of the \$110,563,000 new obligations
will require cash payments during the fiscal year.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS

Forest Roads and Trails

	<u>FY 1974</u>	<u>FY 1975</u>	<u>FY 1976</u>	<u>Change</u>
Alabama	\$520,008	\$585,500	\$583,400	-\$2,100
Alaska	5,184,658	6,597,900	6,574,300	-23,600
Arizona	2,920,723	3,500,300	3,487,800	-12,500
Arkansas	1,997,832	2,049,400	2,042,100	-7,300
California	29,406,019	37,062,300	36,929,800	-132,500
Colorado	4,775,224	6,136,700	6,114,800	-21,900
District of Columbia ...	2,899,502	3,425,000	3,412,800	-12,200
Florida	529,246	820,000	817,100	-2,900
Georgia	821,761	769,800	767,100	-2,700
Idaho	13,214,539	15,256,400	15,201,900	-54,500
Illinois	185,026	335,100	333,900	-1,200
Indiana	58,753	48,200	48,000	-200
Kansas	623	-	-	-
Kentucky	538,481	1,254,000	1,249,500	-4,500
Louisiana	671,533	841,000	838,400	-2,600
Maine	27,502	24,300	24,200	-100
Michigan	1,565,151	1,717,200	1,711,100	-6,100
Minnesota	1,441,795	1,587,300	1,581,600	-5,700
Mississippi	854,594	824,300	821,400	-2,900
Missouri	461,633	887,000	883,800	-3,200
Montana	10,544,030	13,407,500	13,359,600	-47,900
Nebraska	37,155	43,200	43,000	-200
Nevada	372,968	1,268,100	1,263,600	-4,500
New Hampshire	660,309	604,200	602,000	-2,200
New Mexico	3,391,044	3,640,500	3,627,500	-13,000
New York	2,458	4,400	4,400	-
North Carolina	1,131,200	891,100	887,900	-3,200
North Dakota	74,956	70,700	70,400	-300
Ohio	54,233	168,300	167,700	-600
Oklahoma	155,886	268,100	267,100	-1,000
Oregon	22,902,551	26,860,300	26,764,400	-95,900
Pennsylvania	876,354	1,112,200	1,108,200	-4,000
Puerto Rico	36,892	31,700	31,600	-100
South Carolina	722,589	712,800	710,300	-2,500
South Dakota	890,233	1,010,400	1,006,800	-3,600
Tennessee	456,616	635,000	632,700	-2,300
Texas	791,124	859,700	856,600	-3,100
Utah	2,287,663	2,697,300	2,687,700	-9,600
Vermont	457,470	580,900	578,800	-2,100
Virginia	797,551	1,139,200	1,135,100	-4,100
Washington	11,776,218	13,815,200	13,765,900	-49,300
West Virginia	923,019	1,098,400	1,094,500	-3,900
Wisconsin	981,450	1,016,800	1,013,200	-3,600
Wyoming	2,655,980	3,448,300	3,436,000	-12,300
Total	<u>131,054,552</u>	<u>159,106,000</u>	<u>158,538,000</u>	<u>-568,000</u>

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST ROADS AND TRAILS (LIQUIDATION OF CONTRACT AUTHORITY)

Program and Financing (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
05-96-2262-0-1-302			
<u>Program by activities:</u>			
Direct program			
1. Construction of roads and trails	110,480	138,001	117,194
2. Maintenance of roads and trails	43,595	40,105	43,344
Total direct program	154,075	178,106	160,538
Reimbursable program			
1. Construction of roads and trails	297	1,500	1,500
2. Maintenance of roads and trails	129	500	500
Total reimbursable program	426	2,000	2,000
Total program costs, funded 1/	154,502	180,106	162,538
Change in selected resources (undelivered orders)	-23,021	-19,000	-2,000
10 Total obligations	131,481	161,106	160,538
<u>Financing:</u>			
Receipts and reimbursements from:			
11 Federal funds	-45,738	-48,753	-49,725
14 Non-Federal sources	-157	-250	-250
21.49 Unobligated balance available, start of year: Contract authority	-279,383	-450,000	-416,286
24.49 Unobligated balance available, end of year: Contract authority	450,000	416,286	280,000
25.49 Unobligated balance lapsing: Contract authority	23,797	25,723
Budget authority	280,000	78,389

(Mono cast: 21.5)

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(Mono cast. 4.9)

FOREST ROADS AND TRAILS (LIQUIDATION OF CONTRACT AUTHORITY)

Program and Financing (in thousands of dollars)--continued

Identification code		1974 actual	1975 estimate	1976 estimate
05-96-2262-0-1-302				
<u>Budget authority:</u>				
Current:				
40	Appropriation	97,700	120,864	108,225
40.49	Portion applied to liquidate contract authority	-97,700	-124,578	-108,225
43	Appropriation (adjusted)	.....	-3,714	.....
44.20	Proposed supplemental for civilian pay raise .....	.....	3,714	.....
49	<u>Contract authority (23 U.S.C. 203)</u>	140,000	.....	....
	Unobligated balance of contract authority rescinded (Public Law 93-529) .....	.....	-61,611	...
Permanent:				
69	<u>Contract authority (23 U.S.C. 203)</u>	140,000	140,000	.....
Relation of obligations to outlays:				
71	Obligations incurred, net ...	85,586	112,103	110,563
Obligated balance, start of year:				
72.40	Appropriation	28,428	15,558	319
72.49	Contract authority	47,873	35,759	23,284
Obligated balance, end of year:				
74.40	Appropriation	-15,558	-319	-5,316
74.49	Contract authority	-35,759	-23,284	-25,622
90	Outlays	110,570	136,422	102,909
91.20	Outlays from civilian pay raise supplemental .....	.....	3,395	319
1/ Includes capital outlay as follows: thousand; 1976, \$75,000 thousand.		1974, \$74,775 thousand; 1975, \$90,000		
(Mono cast: 21.5)		(Mono cast: 5)	(Mono cast: 5)	(Mono cast: 4.9)

STANDARD FORM 304
May 1969, Bureau of the Budget
Circular No. A-11, Revised
304-103

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST ROADS AND TRAILS (LIQUIDATION OF CONTRACT AUTHORITY)
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-2262-0-1-302	19 74 actual	1975 estimate	1976 estimate
FOREST SERVICE--Direct obligations:			
Personnel compensation:			
11.1 Permanent positions.....	52,995	60,510	59,410
11.3 Positions other than permanent.....	20,986	24,076	23,745
11.5 Other personnel compensation.....	1,749	1,907	1,850
11.8 Special personal services payments.....	1	.....	.....
Total personnel compensation.....	75,731	86,493	85,005
Personnel benefits:			
12.1 Civilian.....	7,723	8,767	8,685
13.0 Benefits for former personnel.....	44	47	40
21.0 Travel and transportation of persons.....	3,176	2,439	5,175
22.0 Transportation of things.....	5,793	5,922	6,600
23.0 Rent, communications, and utilities.....	2,682	4,774	5,400
24.0 Printing and reproduction.....	427	465	525
25.0 Other services.....	12,810	23,338	16,604
26.0 Supplies and materials.....	6,260	6,374	7,150
31.0 Equipment.....	3,353	3,643	4,550
32.0 Lands and structures.....	12,576	16,275	18,300
33.0 Investments and loans.....			
41.0 Grants, subsidies, and contributions.....			
42.0 Insurance claims and indemnities.....	54	55	55
43.0 Interest and dividends.....			
44.0 Refunds.....	-1	.....	.....
Subtotal direct obligations ...	130,628	158,592	158,089
95.0 Quarters and subsistence charges direct	-260	-247	-250
99.0 Total obligations.....	130,368	158,345	157,839

STANDARD FORM 304
May 1969, Bureau of the Budget
Circular No. A-11 Revised
304-103

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST ROADS AND TRAILS (LIQUIDATION OF CONTRACT AUTHORITY)

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 74 actual	19 75 estimate	19 76 estimate
05-96-2262-0-1-302			
FOREST SERVICE--Reimbursable obligations:			
Personnel compensation:			
11.1 Permanent positions.....	139	219	220
11.3 Positions other than permanent.....	40	72	70
11.5 Other personnel compensation.....	7	13	15
11.8 Special personal services payments.....			
Total personnel compensation.....	186	304	305
Personnel benefits:			
12.1 Civilian.....	16	26	25
13.0 Benefits for former personnel.....			
21.0 Travel and transportation of persons.....	7	13	15
22.0 Transportation of things.....	12	27	30
23.0 Rent, communications, and utilities.....	5	10	10
24.0 Printing and reproduction.....	1	4	5
25.0 Other services.....	52	579	580
26.0 Supplies and materials.....	24	43	40
31.0 Equipment.....	2	5	5
32.0 Lands and structures.....	121	989	985
33.0 Investments and loans.....			
41.0 Grants, subsidies, and contributions.....			
42.0 Insurance claims and indemnities.....			
43.0 Interest and dividends.....			
44.0 Refunds.....			
 reimbursable			
99.0 Total obligations.....	426	2,000	2,000
Total obligations, Forest Service	130,794	160,345	159,839

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STANDARD FORM 304
 M 969 Bureau of the Budget
 Circular No. A-11 Revised
 404-103

DEPARTMENT OF AGRICULTURE
 FOREST SERVICE

FOREST ROADS AND TRAILS (LIQUIDATION OF CONTRACT AUTHORITY)

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
05-96-2262-0-1-302			
DEPARTMENT OF TRANSPORTATION			
Personnel compensation:			
111 Permanent positions.....	95	100	107
114 Positions other than permanent.....	27	27	28
115 Other personnel compensation.....	10	10	11
118 Special personal services payments.....			
Total personnel compensation.....	132	137	146
Personnel benefits:			
121 Civilian.....	18	12	13
130 Benefits for former personnel.....			
210 Travel and transportation of persons.....	31	31	31
220 Transportation of things.....	10	10	10
330 Rent, communications, and utilities.....	2	2	2
440 Printing and reproduction.....			
500 Other services.....	135	135	135
600 Supplies and materials.....			
710 Equipment.....			
800 Lands and structures.....	359	434	362
930 Investments and loans.....			
940 Grants, subsidies, and contributions.....			
950 Insurance claims and indemnities.....			
960 Interest and dividends.....			
990 Refunds.....			
Total, Department of Transportation ..	687	761	699
990 Total obligations.....	131,481	161,106	160,538

FOREST SERVICE

FOREST ROADS AND TRAILS (LIQUIDATION OF CONTRACT AUTHORITY)

For expenses necessary for carrying out the provisions of title 23, United States Code, sections 203 and 205, relating to the construction and maintenance of forest development roads and trails, ~~[\$120,864,000]~~ *\$108,225,000*, to remain available until expended, for liquidation of obligations incurred pursuant to authority contained in title 23, United States Code, section 203: *Provided, That* funds available under the Act of March 4, 1913 (16 U.S.C. 501) shall be merged with and made a part of this appropriation.

[Contract authority provided for the fiscal year ending June 30, 1973 by section 105(a)(7) of the Federal-Aid Highway Act of 1970 (Public Law 91-605) for "Forest development roads and trails" is rescinded in the amount of \$61,611,000.]

Funds available under the Act of March 4, 1913 (16 U.S.C. 501) shall be merged with and made a part of this appropriation and shall be used for expenses necessary for carrying out the provisions of title 23, United States Code, sections 203 and 205, relating to the construction and maintenance of forest development roads and trails, to remain available until expended. (7 U.S.C. 2250; 16 U.S.C. 532-536; 23 U.S.C. 101, 209; Department of the Interior and Related Agencies Appropriation Act, 1975.)

DEPARTMENT OF AGRICULTURE
FOREST SERVICE

A-11-32a

FOREST ROADS AND TRAILS (LIQUIDATION OF CONTRACT AUTHORITY)

Program and Financing (in thousands of dollars)

Identification code	IN	IN	IN
05-96-2262-0-1-302			
<u>Program by activities:</u>	7/1-9/30/76		
Direct program			
1. Construction of roads and trails	37,305		
2. Maintenance of roads and trails	16,000		
Total direct program	53,305		
Total reimbursable program	25		
Total program costs, funded 1/	53,330		
Change in selected resources (undelivered orders)	-1,000		
10 Total obligations	52,330		
<u>Financing:</u>			
Receipts and reimbursements from:			
11 Federal funds	-51,600		
21.49 Unobligated balance available, July 1: Contract authority	-280,000		
24.49 Unobligated balance available, September 30: Contract authority	279,270		
40 Budget authority .....	.....	
<u>Relation of obligations to outlays:</u>			
71 Obligations incurred, net	730		
Obligated balance, July 1:			
72.40 Appropriation	5,316		
72.49 Contract authority	25,622		
Obligated balance, September 30:			
74.40 Appropriation	-5,316		
74.49 Contract authority	-26,352		
90 Outlays .....	.....	
1/ Includes capital outlay as follows:	\$25,000 thousand.		
(Mono cast: 21.5)	(Mono cast: 5)	(Mono cast: 5)	(Mono cast: 4.9)

FOREST SERVICE

FOREST ROADS AND TRAILS

Justification for Transition Period July 1-September 30, 1976

Funds for liquidation of contract authority for the Forest Roads and Trails appropriation are not being requested for the transition period. It is proposed that the appropriation of 10 percent of forest receipts for construction and maintenance of roads and trails pursuant to 16 USC 501 (estimated to be \$51,600,000) be merged with this appropriation during the transition period.

The relationship of the obligations and outlays for the period July 1 through September 30, 1974, to the total fiscal year 1975 program was used as a basis for determining the obligations and outlays for the transition period. The current rates were applied to the fiscal year 1976 program.

A program level of \$52,330,000 is proposed for the transition period which is about 33 percent of the proposed program level for fiscal year 1976 of \$158.5 million. This level for the transition period is not pro rata of the 1976 request because of the seasonal workload. The following is the work planned to be undertaken during this period (dollars in thousands):

	<u>Miles</u>	<u>Amount</u>
Recurrent road maintenance	96,630	\$12,400
Recurrent trail maintenance	30,700	3,800
Road construction	47	1,000
Trail construction	90	1,200
Location, surveys, plans and supervision (timber purchaser roads)	11,000	30,000
Supplementing timber purchaser construction	80	2,180
Bridge construction and reconstruction for timber access	29	1,750
Total		<u>52,330</u>
	<u>Roads</u>	<u>Trails</u>
Construction--miles:		
By the Government	47	90
By timber purchaser	4,500	- -

ACQUISITION OF LANDS FOR NATIONAL FORESTS, SPECIAL ACTS

Appropriation, 1974	\$94,000
Appropriation, 1975	161,000
Estimate, 1976	<u>161,000</u>

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
1. Cache National Forest, Utah, Act of 5/11/38, as amended	\$19,410	\$20,000	\$20,000	- -
2. Uinta-Wasatch National Forests, Utah, Act of 8/26/35, as amended	20,000	30,000	30,000	- -
3. Toiyabe National Forest, Nevada, Act of 6/25/38, as amended	8,000	10,000	10,000	- -
4. Angeles National Forest, California, Act of 6/11/40	14,000	20,000	20,000	- -
5. San Bernardino and Cleveland National Forests, California, Act of 6/15/38	32,000	81,000	81,000	- -
Unobligated balance reverted to National Forests Fund	590	- -	- -	- -
Appropriation or estimate	94,000	161,000	161,000	- -

The Congress has enacted several special laws which authorize appropriation from the receipts of specified National Forests for the purchase of lands to minimize erosion and flood damage. Amounts appropriated and laws under which authorized are shown above.

These are critical watershed lands needing soil stabilization and vegetative cover restoration to prevent serious erosion and damaging floods within these National Forests. Land treatment measures must be applied and subsequently maintained on all lands in these areas to make corrective action fully effective. To assure full program effectiveness, the intermingled private lands must be acquired by the Federal Government. The results will be reflected in improved watershed conditions, social benefits, and development of economic strength in local communities.

The counties in southern California have recognized the benefits that these acquisition programs have produced. They are very interested in having these critical watershed lands protected by being in public ownership. At the present, damages to these lands are occurring which can only result in future expenditures of public funds for rehabilitation and public safety at costs greatly exceeding current land acquisition costs.

Cache National Forest. In fiscal year 1974, funds were available from two sources for the purchase of lands within the Cache National Forest in Utah.

1. The Receipts Act of May 11, 1938, as amended - \$20,000. This is an annual appropriation.
2. The Act of July 24, 1956 -- \$200,000 was appropriated under this authority in fiscal years 1957 through 1960. These funds remain available until expended. Through fiscal year 1974, \$189,351 has been obligated from this appropriation

These funds are used to acquire key tracts of land in the steep, rough, and highly important watershed areas lying north of the Ogden River along the Wasatch front and on Wellesville Mountain of the Cache National Forest. These are rugged mountain lands above the river valley which have been damaged and their watershed functions impaired through forest fires or overgrazing. This contributes to excessive rainfall runoff causing severe erosion. The damaged watershed lands are potential sources of floods and mudrock flows. Many tracts of land are located in the north fork of Ogden River and on the drainage of Pineview Reservoir, a Federal reclamation project. Others are within the watersheds of the city of Ogden and the other small towns along the Wasatch front. Public ownership of these lands and subsequent restoration and protection of their vegetative cover is a highly important part of a vigorous cooperative program with the local community and agencies.

The appropriation of \$20,000 under the Act of May 11, 1938, is from receipts of the Cache National Forest. In the absence of this appropriation, the State of Utah would receive 25 percent of these receipts for roads and school purposes in the local counties involved. Therefore, the local counties, in effect, are contributing one-fourth of the amount of this appropriation. These appropriations are extremely important to the continuation of a vital and worthwhile program extending almost thirty years and shared in by both the local agencies and the Federal Government through the National Forests.

The 1956 Act requires that expenditures of Federal funds be matched by contributions by local agencies or people. This requirement has been met through donations of money and lands valued at \$200,000.

Through fiscal year 1974, 29,352 acres have been approved for purchase pursuant to the Receipts Act of 1938, and 15,957 acres under the Special Act of 1956. The 1975 objective is to acquire 840 additional acres of these critical watershed lands. A similar acreage is expected to be acquired in 1976.

Uinta-Wasatch. In fiscal years 1963 through 1974, an appropriation of \$240,000 was made under the Uinta-Wasatch Receipts Act of August 26, 1935, for acquiring critical watershed lands in the American Fork Canyon watershed. A total of 2,921 acres has been approved for purchase through fiscal year 1974, and an estimated 100 acres will be acquired each year during 1975 and 1976.

Toiyabe National Forest. \$10,000 was appropriated under this Act in fiscal year 1975 and \$8,000 in 1974. The 1975 and 1976 objective is to acquire 40 acres each year.

Angeles National Forest. \$14,000 was appropriated in fiscal year 1974, \$20,000 in 1975, and \$20,000 is proposed in 1976 to purchase important watershed lands. Acquisition is needed to minimize erosion and flood damage. The 1975 objective is to acquire 30 acres. The 1976 objective is to acquire 80 acres.

San Bernardino and Cleveland National Forests. The \$81,000 proposed for fiscal year 1976 is to acquire 270 acres of important watershed lands. Acquisition is needed to minimize erosion and flood damage.

No permanent full-time positions are assigned to this appropriation.

ACQUISITION OF LANDS FOR NATIONAL FORESTS, SPECIAL ACTS

Amounts Available for Appropriation (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
Revenue	93	161	161
Unobligated balances returned to unappropriated receipts	1	.....	.....
Total available for appropriation	94	161	161
Appropriation	-94	-161	-161
Unappropriated balance, end of year ..	.....	.....	.....

DEPARTMENT OF AGRICULTURE
FOREST SERVICE

A-11-32a

ACQUISITION OF LANDS FOR NATIONAL FORESTS, SPECIAL ACTS

Program and Financing (in thousands of dollars)

Identification code		1974 actual	1975 estimate	1976 estimate
05-96-5208-0-2-302				
<u>Program by activities:</u>				
	1. Cache National Forest, Utah	19	20	20
	2. Uinta and Wasatch National Forests, Utah	26	30	30
	3. Toiyabe National Forest, Nevada	8	10	10
	4. Angeles National Forest, California	1	20	20
	5. San Bernardino and Cleveland National Forests, California .....	.....	46	81
	Total program costs, funded 1/	54	126	161
	Change in selected resources (undelivered orders)	39	35	.....
10	Total obligations (object class 32.0)	93	161	161
<u>Financing:</u>				
25	Unobligated balance lapsing ...	1	.....	.....
40	Budget authority (appropriation) (special fund)	94	161	161
<u>Relation of obligations to outlays:</u>				
71	Obligations incurred, net	93	161	161
72	Obligated balance, start of year	7	68	89
74	Obligated balance, end of year	-68	-89	-89
77	Adjustments in expired accounts	-6	.....	.....
90	Outlays	26	140	161
1/ Includes capital outlay as follows: 1974, \$48 thousand; 1975, \$126 thousand; 1976, \$150 thousand.				

ACQUISITION OF LANDS TO COMPLETE LAND EXCHANGES

Appropriation, 1974	\$55,300
Appropriation, 1975	39,310
Estimate, 1976	35,410
Change	<u>-3,900</u>

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Purchase of land, State of:				
California	\$28,000:	\$45,145:	- - :	-\$45,145
Montana	- - :	750:	- - :	-750
Georgia	- - :	16,250:	- - :	-16,250
Oklahoma	- - :	4,500:	- - :	-4,500
South Carolina	- - :	- - :	\$2,410:	2,410
Wisconsin	- - :	- - :	15,000:	15,000
Minnesota	- - :	- - :	18,000:	18,000
Unobligated balance brought forward	-35:	-27,335:	- - :	27,335
Unobligated balance carried forward	27,335:	- - :	- - :	- -
Appropriation or estimate	55,300:	39,310:	35,410:	-3,900

It is estimated that 150 acres of land will be acquired in fiscal year 1975, and 130 acres in fiscal year 1976.

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
ACQUISITION OF LANDS TO COMPLETE LAND EXCHANGES

Amounts Available for Appropriation (in thousands of dollars)

Identification code	19 74 actual	1975 estimate	19 76 estimate
Unappropriated balance, start of year	94	56	35
Revenue	17	18	.....
Total available for appropriation	111	74	35
Appropriation	-55	-39	-35
Unappropriated balance, end of year .	56	35	.....

DEPARTMENT OF AGRICULTURE
FOREST SERVICE

A-11-32a

ACQUISITION OF LANDS TO COMPLETE LAND EXCHANGES

Program and Financing (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
05-96-5216-0-2-302			
<u>Program by activities:</u>			
<u>Acquisition of land:</u>			
1. California .....	.....	55	18
2. Georgia .....	.....	16	.....
3. Minnesota .....	.....	.....	18
4. Montana .....	.....	1	.....
5. Oklahoma .....	.....	4	.....
6. South Carolina .....	.....	.....	2
7. Wisconsin .....	.....	.....	15
Total program costs, funded			
1/ .....	.....	76	53
Change in selected resources (undelivered orders)	28	-10	-18
10 Total obligations (object class 32.0)	28	66	35
<u>Financing:</u>			
21 Unobligated balance available, start of year .....	.....	-27	.....
24 Unobligated balance available, end of year	27	.....	.....
40 <u>Budget authority (appropriation)</u> (special fund)	55	39	35
<u>Relation of obligations to outlays:</u>			
71 Obligations incurred, net	28	66	35
72 Obligated balance, start of year	...	28	18
74 Obligated balance, end of year	-28	-18	.....
90 Outlays .....	.....	76	53
1/ Includes capital outlay as follows: thousand.	1974, \$0; 1975, \$76 thousand;	1976, \$53	
(Mono cast: 21.5)	(Mono cast: 5)	(Mono cast: 5)	180 (Mono cast: 4.9)

ACQUISITION OF LANDS, KLAMATH INDIANS

Appropriation, 1974	-
Appropriation, 1975	\$49,000,000
Estimate, 1976	-
Change	<u>-49,000,000</u>

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Purchase of lands, Klamath Indians :	- -	\$49,000,000:	- -	-\$49,000,000
Unobligated balance brought forward:	- -	- -	- -	- -
Unobligated balance carried forward:	- -	- -	- -	- -
Appropriation or estimate	- -	49,000,000:	- -	-49,000,000

In fiscal year 1961, \$68,717,000 was appropriated for the purchase of 525,679 acres of Klamath Indian forest lands which were offered for sale to private parties before the Secretary of Agriculture took title. The remaining members of the Tribe entered into a trust management agreement with the United States National Bank of Oregon which provided for management of the remaining Klamath Indian forest lands. In May 1969 these members elected to terminate the trust.

Funds were appropriated in fiscal year 1975 to carry out the directive in PL 93-102 of August 16, 1973, that the Secretary of Agriculture acquire by condemnation all of the Klamath Indian forest lands the trustee is required to sell. On October 31, 1974, a Declaration of Taking was signed involving 134,961 acres and the estimated compensation of \$49,000,000 was deposited in Federal Court.

No permanent full-time positions are assigned to this appropriation.

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
ACQUISITION OF LANDS, Klamath INDIANS

A-11-32a

Program and Financing (in thousands of dollars)

Identification code 05-96-1122-0-1-302	1974 actual	1975 estimate	1976 estimate
<u>Program by activities:</u>			
Direct program:			
10 Acquisition of lands, Klamath Indians (costs--obligations) (object class 32.0) <u>1/</u> ....	.....	49,000	.....
<u>Financing:</u>			
40 <u>Budget authority (appropriation)</u>	.....	49,000	.....
<u>Relation of obligations to outlays:</u>			
71 Obligations incurred, net ....	.....	49,000	.....
90 Outlays	49,000
<u>1/</u> Includes capital outlay as follows:	1975, \$49,000 thousand.		

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188
(Mono cast: 4.9)

ASSISTANCE TO STATES FOR TREE PLANTING

		Permanent full-time positions
Appropriation, 1974	\$1,013,000	17
Appropriation, 1975	1,355,000	20
Estimate, 1976	1,359,000	20
Change	<u>+4,000</u>	<u>- -</u>

Adjustments to 1975 appropriation:

Appropriation Act, 1975	\$1,344,000
Proposed supplemental for increased pay costs	11,000
Adjusted base for 1976	<u>1,355,000</u>
Estimate, 1976	<u>1,359,000</u>
Change	<u>+4,000</u>

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Assistance to States for tree planting	\$1,099,112	\$1,378,506	\$1,359,000	-\$19,500
Unobligated balance brought forward	-109,618	-23,506	- -	23,506
Unobligated balance carried forward	23,506	- -	- -	- -
Total available or estimate	<u>1,013,000</u>	<u>1,355,000</u>	<u>1,359,000</u>	<u>4,000</u>
Supplemental appropriation	- -	-11,000	- -	- -
Appropriation or estimate	<u>1,013,000</u>	<u>1,344,000</u>	- -	- -

An increase of \$4,000 is proposed to provide for the full year costs of the pay increase effective in fiscal year 1975.

No change in permanent full-time positions is proposed.

The program authorized under Section 401 of the Agricultural Act of 1956 (16 USC 568e) provides assistance to States in their forestation and tree improvement projects. Needed rehabilitation on State and county forest lands has resulted from this program.

New and expanded tree improvement projects which are partially or totally funded under this program are underway in 41 States. Nationally, the States expend three times more than they receive under this program for tree improvement.

Assistance will emphasize seed orchard establishment aimed at the production of improved genetic quality tree seed. Reforestation work will be carried out to restore low-yielding or non-productive forest lands to fuller production of commercial wood. In addition, attendant benefits include:

- (1) Erosion control.
- (2) Wildlife habitat improvement.
- (3) Expanded recreational land use potentials.
- (4) Environmental enhancement.

Examples of Recent Accomplishments

Field grafting for disease resistant orchards was completed on a large scale in 1974 in South Carolina. Nearly 500 longleaf and over 600 loblolly pine grafts were made. The States' five-acre orchard for disease resistant (fusiform rust) loblolly pine was completed in 1974 and the four-acre orchard of the Piedmont loblolly disease resistant orchard was nearly completed.

The Alabama Tree Improvement Program now has a total of 185 acres of pine seed orchards. At Geneva State Forest, the longleaf seed orchard was expanded by five acres to a total of 20 acres, and 20 acres were prepared for expansion of the slash pine seed orchard. Grafts for filling this additional acreage were made during the past grafting season and over 2,400 transplants were made in the seed orchards.

Technically sound long-range tree improvement planning. With the Forest Service tree improvement specialist's assistance, Kansas and Wyoming are nearing completion of comprehensive Statewide plans. Nebraska has developed a tree improvement program and is in the process of hiring a tree improvement specialist. Colorado is developing a program to produce genetically improved containerized planting stock. Kansas is continuing to expand its walnut improvement program and seed orchard.

Maryland is now producing annually 100,000 hybrid white pine--called Brigham pine. These hybrids grow as fast in two years as normal white pines do in three years. The tallest trees in a 13-year-old stand are now 43 feet tall. They continue to exhibit excellent form and needle color.

The Michigan Department of Natural Resources has worked with jack pine, often called "scrub pine" because it grows scrubby and crooked, to improve its form and growth rate. In that State straight rapid-growing trees are now available for seed production as a result of the tree improvement program.

GEOGRAPHIC BREAKDOWN OF APPROPRIATION
Assistance to States for Tree Planting

	1974 <u>actual</u>	1975 <u>estimate</u>	1976 <u>estimate</u>
Alabama	24,000	65,000	65,000
Arkansas	10,000	15,000	15,000
California	18,000	23,000	23,000
Colorado	5,000	7,000	7,000
Connecticut	4,000	6,000	6,000
Florida	30,000	39,000	39,000
Georgia	20,000	53,000	53,000
Guam	-	4,000	4,000
Hawaii	35,000	38,000	38,000
Idaho	10,000	16,000	16,000
Illinois	8,000	10,000	10,000
Indiana	12,500	12,000	12,000
Iowa	7,000	8,000	8,000
Kansas	12,000	19,000	19,000
Kentucky	12,000	17,000	17,000
Louisiana	16,500	42,000	42,000
Maine	15,000	5,000	5,000
Maryland	5,000	20,000	20,000
Massachusetts	-	1,000	1,000
Michigan	30,000	25,000	25,000
Minnesota	50,000	18,000	18,000
Mississippi	14,500	41,000	41,000
Missouri	28,000	30,000	30,000
Montana	14,000	15,000	15,000
Nebraska	5,000	8,000	8,000
New Hampshire	10,000	8,000	8,000
New Jersey	12,000	10,000	10,000
New York	30,000	15,000	15,000
North Carolina	14,000	54,000	54,000
Ohio	14,000	10,000	10,000
Oklahoma	10,000	16,000	16,000
Oregon	60,000	46,000	46,000
Pennsylvania	29,000	30,000	30,000
South Carolina	22,000	28,000	28,000
Tennessee	14,000	33,000	33,000
Texas	15,000	56,000	56,000
Vermont	5,500	6,000	6,000
Virginia	23,000	57,000	57,000
Washington	60,000	50,000	50,000
West Virginia	10,000	5,000	5,000
Wisconsin	20,000	12,000	12,000
Wyoming	10,000	10,000	10,000
Special projects	2,000	33,400	33,400
Subtotal	746,000	1,016,400	1,016,400
Forest Service administration and technical assistance	267,000	338,600	342,600
Total	<u>1,013,000</u>	<u>1,355,000</u>	<u>1,359,000</u>

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
ASSISTANCE TO STATES FOR TREE PLANTING

A-11-34a

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-1101-0-1-302	19 74 actual	1975 estimate	19 76 estimate
Personnel compensation:			
11.1 Permanent positions.....	238	261	269
11.3 Positions other than permanent.....	12	9	10
11.5 Other personnel compensation.....			
11.8 Special personal services payments.....			
Total personnel compensation.....	250	270	279
Personnel benefits:			
12.1 Civilian.....	22	26	26
13.0 Benefits for former personnel.....			
21.0 Travel and transportation of persons.....	13	24	15
22.0 Transportation of things.....	1	1	1
23.0 Rent, communications, and utilities.....	2	13	16
24.0 Printing and reproduction.....	.....	3	3
25.0 Other services.....	110	42	17
26.0 Supplies and materials.....	2	.....	2
31.0 Equipment.....	1	.....	.....
32.0 Lands and structures.....			
33.0 Investments and loans.....			
41.0 Grants, subsidies, and contributions.....	698	1,000	1,000
42.0 Insurance claims and indemnities.....			
43.0 Interest and dividends.....			
44.0 Refunds.....			
99.0 Total obligations.....	1,099	1,379	1,359

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
ASSISTANCE TO STATES FOR TREE PLANTING

A-11-34a

Personnel Summary

[illegible]

FOREST SERVICE

ASSISTANCE TO STATES FOR TREE PLANTING

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976	:7/1-9/30/76
	:Estimate	Estimate
Assistance to States for tree planting	\$1,359	\$829

FOREST SERVICE

ASSISTANCE TO STATES FOR TREE PLANTING

For expenses necessary to carry out section 401 of the Agricultural Act of 1956, approved May 28, 1956 (16 U.S.C. 568e), **[\$1,344,000]** \$1,350,000, to remain available until expended.

For "Assistance to States for tree planting" for the period July 1, 1976, through September 30, 1976, \$829,000, to remain available until expended. (Department of the Interior and Related Agencies Appropriation Act, 1975.)

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
ASSISTANCE TO STATES FOR TREE PLANTING

Program and Financing (in thousands of dollars)

Identification code	B BANK	R RANGE	P PAGE
05-96-1101-0-1-302	7/1-9/30/76		
<u>Program by activities:</u>			
Tree planting assistance (pro- gram costs, funded)	829		
10 Total obligations	829		
40 Budget authority (appropriation)	829		
<u>Relation of obligations to outlays:</u>			
71 Obligations incurred, net	829		
72 Obligated balance, July 1	504		
74 Obligated balance, September 30	-829		
90 Outlays	504		
(Mono cast: 21.5)	(Mono cast: 5)	(Mono cast: 5)	197 (Mono cast: 4.9)

FOREST SERVICE

ASSISTANCE TO STATES FOR TREE PLANTING

Justification for Transition Period July 1-September 30, 1976

An estimate of \$829,000 is requested for this appropriation which is about 61 percent of proposed funding at the fiscal year 1976 budget estimate of \$1,359,000.

Section 401 of the Agricultural Act of 1956 provides assistance to States in their forestation and tree improvement projects. New and expanded tree improvement projects are partially or totally funded under this program through Federal-State agreements.

The relationship of the obligations and outlays for the period July 1 through September 30, 1974, to the total fiscal year 1975 program was used as a basis for determining the obligations and outlays for the transition period. The current rates were applied to the fiscal year 1976 program.

Therefore, the 61 percent level is required for the transition period because of agreements with States honored during these three months.

CONSTRUCTION AND OPERATION OF RECREATION FACILITIES
(Permanent appropriation)

		Permanent full-time positions
Appropriation, 1974	\$3,277,838	106
Appropriation, 1975	1,260,000	53
Estimate, 1976	3,674,000	87
Change	<u>+2,414,000</u>	<u>+34</u>

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Construction and operation of recreation facilities	\$3,208,387	\$1,329,451	\$3,674,000	\$2,344,549
Unobligated balance brought forward	- -	-69,451	- -	69,451
Unobligated balance carried forward	69,451	- -	- -	- -
<u>Appropriation or estimate ...</u>	<u>3,277,838</u>	<u>1,260,000</u>	<u>3,674,000</u>	<u>2,414,000</u>

GOAL: Improve the operation and maintenance of critically needed National Forest System recreation facilities.

An increase of 34 permanent full-time positions is proposed to cover the anticipated increased program of over \$2 million.

These are funds proposed for appropriation from admission and user fees collected under the Land and Water Conservation Fund Act of 1965, as amended (78 Stat. 897; 16 USC 4601-5; PL 93-81, 8/1/73).

They will be used:

- (1) To maintain operation and maintenance standards at the fiscal year 1975 levels which otherwise would have been lowered.
- (2) To enable strengthening of law and regulation enforcement to assure visitor safety and reduce vandalism.

Public Law 92-347, approved July 11, 1972, amended the Land and Water Conservation Fund Act of 1965 to provide that the Forest Service (and other bureaus) may collect recreation admission fees at designated National Recreation Areas and "special recreation use fees for the use of sites, facilities, equipment, or services furnished at Federal expense." After distribution to the States and Counties and Roads and Trails for States appropriation as required under the Acts of 5/23/08, 7/22/37, and 3/14/13, the remaining fees (65 percent of total collected) are to be deposited into a "special account in the Treasury of the United States to be administered in conjunction with, but separate from, the revenues in the Land and Water Conservation Fund. Revenues in the special account shall be available for appropriation without prejudice to appropriations from other sources for the same purposes, for any authorized outdoor recreation function of the agency by which the fees were collected."

CONSTRUCTION AND OPERATION OF RECREATION FACILITIES

Amounts Available for Appropriation (in thousands of dollars)

Identification code	19 74 actual	19 75 estimate	19 76 estimate
Unappropriated balance, start of year	624	.....	89
Revenue	2,654	1,349	3,585
Total available for appropriation .	3,278	1,349	3,674
Appropriation	-3,278	-1,260	-3,674
Unappropriated balance, end of year .	.....	89	.....

CONSTRUCTION AND OPERATION OF RECREATION FACILITIES

Program and Financing (in thousands of dollars)

[illegible]

DEPARTMENT OF AGRICULTURE

FOREST SERVICE

STANDARD FORM 304

May 1969, Bureau of the Budget
Circular No. A-11, Revised

CONSTRUCTION AND OPERATION OF RECREATION FACILITIES

304-103

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
05-96-5009-0-2-302			
Personnel compensation:			
11.1 Permanent positions	1,210	555	1,400
11.3 Positions other than permanent	714	350	715
11.5 Other personnel compensation	44	13	30
11.8 Special personal services payments			
Total personnel compensation	1,968	918	2,145
Personnel benefits:			
12.1 Civilian	188	64	200
13.0 Benefits for former personnel			
21.0 Travel and transportation of persons	26	24	40
22.0 Transportation of things	71	20	75
23.0 Rent, communications, and utilities	98	31	115
24.0 Printing and reproduction	7	1	5
25.0 Other services	215	82	370
26.0 Supplies and materials	372	125	470
31.0 Equipment	80	27	100
32.0 Lands and structures	195	43	160
33.0 Investments and loans			
41.0 Grants, subsidies, and contributions			
42.0 Insurance claims and indemnities			
43.0 Interest and dividends			
44.0 Refunds			
Subtotal	3,220	1,335	3,680
95.0 Quarters and subsistence charges	-12	-6	-6
99.0 Total obligations	3,208	1,329	3,674
			202

Personnel Summary

Identification code	19 74 actual	19 75 estimate	19 76 estimate
05-96-3009-0-2-302			
Total number of permanent positions ..	106	53	87
Full-time equivalent of other positions	89	42	71
Average paid employment	178	81	144
Average GS grade	8.61	8.67	8.66
Average GS salary	\$14,322	\$15,147	\$15,174
Average salary of ungraded positions .	\$11,174	\$11,794	\$11,794

FOREST SERVICE

CONSTRUCTION AND OPERATION OF RECREATION FACILITIES

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976	:7/1-9/30/76
	:Estimate:	Estimate
Construction and operation of recreation facilities	\$3,674	\$2,212

FOREST SERVICE

CONSTRUCTION AND OPERATION OF RECREATION FACILITIES

For construction, operation, and maintenance of outdoor recreation facilities, including collection of special recreation use fees, to remain available until expended, ~~[\$1,260,000]~~ \$3,674,000, to be derived from the special receipt accounts established by section 1(b) of the Act of July 15, 1968 (82 Stat. 354), and section 4(e) of the Act of July 11, 1972 (86 Stat. 461): *Provided, That not more than 40 per centum of the amount credited pursuant to section 4(e) of the Act of July 11, 1972, shall be available for the enhancement of the fee collection system established by section 4 of such Act, including the promotion and enforcement thereof.*

For "Construction and operation of recreation facilities" for the period July 1, 1976, through September 30, 1976, \$2,212,000, to remain available until expended. (Department of the Interior and Related Agencies Appropriation Act, 1975.)

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
CONSTRUCTION AND OPERATION OF RECREATION FACILITIES
Program and Financing (in thousands of dollars)

Identification code 05-96-5009-0-2-302		U XXX	U XXX	U XXX
<u>Program by activities:</u>		7/1-9/30/76		
	Construction, reconstruction, administration, operation, and maintenance of recreation facilities (program costs, funded) 1/	2,212		
10	Total obligations	2,212		
40	<u>Budget authority (appropriation)</u>	2,212		
<u>Relation of obligations to outlays:</u>				
71	Obligations incurred, net	2,212		
72	Obligated balance, July 1	671		
74	Obligated balance, September 30	-1,383		
90	Outlays	1,500		
1/ Includes capital outlay as follows:		\$100 thousand.		

(Mono cast: 21.5)
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206
(Mono cast: 4.9)

FOREST SERVICE

CONSTRUCTION AND OPERATION OF RECREATION FACILITIES

Justification for Transition Period July 1-September 30, 1976

Public Law 92-347 amended the Land and Water Conservation Fund Act of 1965 to provide that the Forest Service (and other bureaus) may collect recreation admission fees at designated National Recreation Areas. Approximately 65 percent of the fees collected are then made available for appropriation to this account.

It is estimated that \$2,212,000 of the funds available will be needed for the transition period to operate and maintain recreation facilities on the National Forests and to assure visitor safety and reduce vandalism. Historically, accelerated activity in the National Forests is experienced in the summer months.

ACQUISITION OF LANDS FOR UINTA NATIONAL FOREST

PROJECT STATEMENT

Project	:	:	:	:	:
	:	:	1975	1976	Increase
	1974	Estimate	Estimate		or
					decrease
Acquisition of lands for Uinta	:	:	:	:	:
National Forest	\$27,504:	\$67,585:	- -	:	-\$67,585
Unobligated balance brought forward .	-95,089:	-67,585:	- -	:	67,585
Unobligated balance carried forward .	67,585:	- -	- -	:	- -
Appropriation or estimate	- -	- -	- -	:	- -

Public Law 89-226 authorized the purchase of approximately 10,000 acres of non-Federally owned land within a described part of the Uinta National Forest in Utah for the purpose of promoting the control of floods and the reduction of soil erosion through restoration of adequate vegetative cover. \$300,000 were appropriated in fiscal year 1967.

As of June 30, 1974, 9,395 acres have been acquired at a cost of \$232,415.

ACQUISITION OF LANDS FOR WASATCH NATIONAL FOREST

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Acquisition of lands for Wasatch National Forest	\$19,194	\$217,065	- -	-\$217,065
Unobligated balance brought forward .	-236,259	-217,065	- -	217,065
Unobligated balance carried forward .	217,065	- -	- -	- -
Appropriation or estimate	- -	- -	- -	- -

The Act of September 14, 1962 (PL 87-661) provided authorization for the appropriation of \$400,000 for purchase of privately owned lands within the Wasatch National Forest in Utah to aid in control of floods and to reduce soil erosion. The full amount of this authorization has been appropriated with the funds remaining available until expended.

As of June 30, 1974, approximately 12,900 acres had been approved for purchase under this authority.

ACQUISITION OF LANDS FOR SUPERIOR NATIONAL FOREST

PROJECT STATEMENT

Project	:	:	:	:	:
	:	:	1975	1976	Increase
	:	1974	Estimate	Estimate	or
	:				decrease
Acquisition of lands for Superior	:	:	:	:	:
National Forest	:	\$18:	\$253:	- - :	-\$253
Unobligated balance brought forward	:	-271:	-253:	- - :	253
Unobligated balance carried forward	:	253:	- - :	- - :	- -
Appropriation or estimate	:	- - :	- - :	- - :	- -

The Act of June 22, 1948 (PL 80-733) as amended, provided authorization for the appropriation of \$4.5 million for the purchase of lands and improvements thereon in the Boundary Waters Canoe Area, Superior National Forest, Minnesota. The full amount of this authorization has been appropriated.

ACQUISITION OF LANDS FOR CACHE NATIONAL FOREST

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Acquisition of lands for Cache National Forest	- -	\$10,649	- -	-\$10,649
Unobligated balance brought forward .	-\$10,649	-10,649	- -	10,649
Unobligated balance carried forward .	10,649	- -	- -	- -
Appropriation or estimate	- -	- -	- -	- -

The 1956 Appropriation Act provided \$200,000 for the acquisition of lands in the Cache National Forest pursuant to the Act of July 24, 1956 (70 Stat. 632). Obligations under this fund are in addition to the appropriation from National Forest receipts authorized by the Act of May 11, 1938, and provided in the appropriation, Acquisition of Lands for National Forests, Special Acts. Under the 1956 Act, funds appropriated must be matched by contribution of funds or land by local agencies or persons. Explanation of this program and the accomplishments thereunder are included under the appropriation, Acquisition of lands for national forests, special acts.

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
CONSOLIDATED WORKING FUND

Program and Financing (in thousands of dollars)

Identification code	19 74 actual	19 75 estimate	1976 estimate
05-96-3911-0-4-302			
<u>Program by activities:</u>			
1. Services for other Federal agencies	770	2,483	.....
2. Forest research at experimental forests and ranges, and for foreign countries	18	.....	.....
3. National Operation Mainstream Program (Department of Labor)	2,295	200	450
Total program costs, funded 1/	3,082	2,683	450
Change in selected resources (undelivered orders)	993	210	-50
10 Total obligations	4,075	2,893	400
<u>Financing:</u>			
Receipts and reimbursements from:			
11 Federal funds	-4,803	-1,211	.....
21 Unobligated balance available, start of year	-1,355	-2,082	-400
24 Unobligated balance available, end of year	2,082	400	.....
Budget authority .....	.....	.....	.....
Relation of obligations to outlays:			
71 Obligations incurred, net	-728	1,682	400
72 Obligated balance, start of year	204	1,716	100
74 Obligated balance, end of year	-1,716	-100	.....
90 Outlays	-2,239	3,298	500
1/ Includes capital outlay as follows: 1974, \$7 thousand; 1975, \$5 thousand; 1976, \$5 thousand.			
(Mono cast: 21.5)	(Mono cast: 5)	(Mono cast: 5)	(Mono cast: 49)

STANDARD FORM 304
May 1969, Bureau of the Budget
Circular No. A-11 Revised.
304-103

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
CONSOLIDATED WORKING FUND

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
05-96-3911-0-4-302			
Personnel compensation:			
11.1 Permanent positions	116	215	160
11.3 Positions other than permanent	1,926	1,131	125
11.5 Other personnel compensation	1	.....	.....
11.8 Special personal services payments			
Total personnel compensation	2,043	1,346	285
Personnel benefits:			
12.1 Civilian	128	179	25
13.0 Benefits for former personnel			
21.0 Travel and transportation of persons	38	24	.....
22.0 Transportation of things	32	40	.....
23.0 Rent, communications, and utilities	4	3	.....
24.0 Printing and reproduction			
25.0 Other services	58	198	.....
26.0 Supplies and materials	7	20	.....
31.0 Equipment	9	7	.....
32.0 Lands and structures			
33.0 Investments and loans			
41.0 Grants, subsidies, and contributions	1,757	1,077	90
42.0 Insurance claims and indemnities			
43.0 Interest and dividends			
44.0 Refunds			
Subtotal	4,076	2,894	400
95.0 Quarters and subsistence charges	-1	-1	.....
99.0 Total obligations	4,075	2,893	400
			215

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
CONSOLIDATED WORKING FUND

A-11-34a

Personnel Summary

Identification code	1974 actual	1975 estimate	1976 estimate
05-96-3911-0-4-302			
Total number of permanent positions ..	12	16	12
Full-time equivalent of other positions	475	252	25
Average paid employment	484	268	37
Average GS grade	8.61	8.67	8.66
Average GS salary	\$14,322	\$15,147	\$15,174
Average salary of ungraded positions .	\$11,174	\$11,794	\$11,794
(Mono cost: 21.5)	(Mono cost: 5)	(Mono cost: 5)	216 (Mono cost: 4.9)

YOUTH CONSERVATION CORPS

NOTE: For budgetary purposes, the entire appropriation is shown under the Forest Service. However, one-half of the appropriation each year is transferred to the Department of the Interior.

		<u>1/</u>	Permanent full-time positions
Appropriation, 1974	\$10,000,000		<u>22</u>
Appropriation, 1975	10,392,000		58
Estimate, 1976	10,400,000		<u>58</u>
Change	<u>+8,000</u>		<u>- -</u>
Adjustments to 1975 appropriation:			
Appropriation Act, 1975	\$10,240,000		
Proposed supplemental for increased pay costs	152,000		
Adjusted base for 1976	10,392,000		
Estimate, 1976	10,400,000		
Change	<u>+8,000</u>		

PROJECT STATEMENT

	:	:	:	:	Increase
	:	:	1975	1976	or
Project	:	1974	Estimate	Estimate	decrease
Youth Conservation Corps	:	\$7,776,691	\$11,640,690	\$10,400,000	-\$1,240,690
Unobligated balance brought forward	:	-2,106,381	-4,329,690	-3,081,000	1,248,690
Unobligated balance carried forward	:	4,329,690	3,081,000	3,081,000	- -
Total available or estimate ^{1/} ...	:	10,000,000	10,392,000	10,400,000	+8,000
Supplemental appropriation	:	- -	-152,000		
Appropriation or estimate	:	<u>10,000,000</u>	<u>10,240,000</u>		

^{1/} Includes allocation to Department of the Interior: 1974, \$5,000,000; 1975, \$5,196,000; 1976, \$5,200,000. Excludes following positions in Interior: 1974, 4; 1975, 8; 1976, 8.

An increase of \$8,000 is proposed to provide for increased pay costs. No change in permanent full-time positions is proposed.

GOAL: To provide gainful summer employment for young men and women in conservation work and offer a broad variety of educational experiences to them as they learn ways to improve the quality and productivity of land, air, and water.

The Act of August 13, 1970 (84 Stat. 794), as amended, authorizes continuation of the Youth Conservation Corps Program on Federal lands, and established a grant program to assist States in establishing YCC projects on non-Federal public lands. The Department of the Interior and Agriculture share the program equally.

The primary purposes of the program are to:

- (1) Provide gainful employment to 15 through 18 year old youths representing all segments of society.
- (2) Further development and maintenance of the natural resources of the United States by the youth, upon whom will fall the ultimate responsibility for maintaining and managing these resources for the American people.
- (3) Develop an understanding and appreciation in Corps participants of the Nation's natural environment and heritage.

This integrated conservation work, learn, and employment program is designed to accomplish needed conservation work, provide employment and income to youth, teach

proper work habits, encourage greater appreciation of the management of natural resources, and increase individual pride and dignity. Conservation work-learn projects on public lands include recreation facilities maintenance and construction, range and wildlife habitat improvement, timber stand improvement, trail improvement and construction, and visitor information services. Recruiting guidelines have been established to meet the mandate of the Congress that there be a representative mix of youth from all economic, social, and racial backgrounds.

Evaluation of the Federal pilot YCC programs in 1971, 1972, and 1973 by Department personnel and the University of Michigan's Institute for Social Research indicates that the purposes of the Act were achieved. With \$10 million provided for the 1974 summer program, the approximately 10,000 young men and women employed accomplished conservation work appraised at a value of over \$2 million. They also found significant gains in environmental education.

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
YOUTH CONSERVATION CORPS

A-11-32a

Program and Financing (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
05-96-1125-0-1-302			
<u>Program by activities:</u>			
Program development (program costs, funded) 1/	5,678	10,641	10,400
Change in selected resources (undelivered orders)	2,099	1,000	.....
10 Total obligations	7,777	11,641	10,400
<u>Financing:</u>			
21 Unobligated balance available, start of year	-2,106	-4,330	-3,081
24 Unobligated balance available, end of year	4,330	3,081	3,081
40 Budget authority (appropriation)	10,000	10,240	10,400
44.20 Proposed supplemental for civilian pay raises .....	.....	152	.....
<u>Relation of obligations to outlays:</u>			
71 Obligations incurred, net	7,777	11,641	10,400
72 Obligated balance, start of year	1,198	3,706	4,208
74 Obligated balance, end of year	-3,706	-4,208	-4,208
90 Outlays excluding pay raise supplemental	5,269	11,000	10,387
91.20 Outlays from civilian pay raise supplemental .....	.....	139	13
1/ Includes capital outlay as follows: 1974, \$23 thousand; 1975, \$50 thousand; 1976, \$50 thousand.			

(Mono cast: 21.3)

(Mono cast: 5)

(Mono cast: 5)

219
(Mono cast: 4.9)

STANDARD FORM 304
May 1969, Bureau of the Budget
Circular No. A-11, Revised.
304-103

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
YOUTH CONSERVATION CORPS

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-1125-0-1-302	1974 actual	1975 estimate	1976 estimate
FOREST SERVICE			
Personnel compensation:			
11.1 Permanent positions.....	326	706	720
11.3 Positions other than permanent.....	437	722	735
11.5 Other personnel compensation.....	27	38	40
11.8 Special personal services payments.....	534	413	420
Total personnel compensation.....	1,344	1,879	1,915
Personnel benefits:			
12.1 Civilian.....	97	143	145
13.0 Benefits for former personnel.....	.....	3	.....
21.0 Travel and transportation of persons.....	69	66	70
22.0 Transportation of things.....	116	195	180
23.0 Rent, communications, and utilities.....	53	95	85
24.0 Printing and reproduction.....	14	35	30
25.0 Other services.....	457	949	678
26.0 Supplies and materials.....	265	750	600
31.0 Equipment.....	24	75	70
32.0 Lands and structures.....	1	2	2
33.0 Investments and loans.....			
41.0 Grants, subsidies, and contributions.....	54	50	50
42.0 Insurance claims and indemnities.....	1	.....	.....
43.0 Interest and dividends.....			
44.0 Refunds.....			
Subtotal	2,475	4,242	3,825
95.0 Quarters and subsistence charges.....	-11	-15	-15
99.0 Total obligations, Forest Service.....	2,464	4,227	3,810

STANDARD FORM **304**
 May 1969, Bureau of the Budget
 Circular No. A-11, Revised.
 304-103

DEPARTMENT OF AGRICULTURE
 FOREST SERVICE
 YOUTH CONSERVATION CORPS

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
05-96-1125-0-1-302			
DEPARTMENT OF THE INTERIOR			
Personnel compensation:			
11.1 Permanent positions	62	132	132
11.3 Positions other than permanent	390	522	526
11.5 Other personnel compensation			
11.8 Special personal services payments			
Total personnel compensation	452	654	658
Personnel benefits:			
12.1 Civilian	52	64	64
13.0 Benefits for former personnel			
21.0 Travel and transportation of persons	112	117	128
22.0 Transportation of things	17	22	20
23.0 Rent, communications, and utilities	16	27	27
24.0 Printing and reproduction	10	15	12
25.0 Other services	1,770	3,442	2,634
26.0 Supplies and materials	110	251	234
31.0 Equipment	28	42	33
32.0 Lands and structures			
33.0 Investments and loans			
41.0 Grants, subsidies, and contributions	2,746	2,780	2,780
42.0 Insurance claims and indemnities			
43.0 Interest and dividends			
44.0 Refunds			
Total obligations, Department of the Interior	5,313	7,414	6,590
99.0 Total obligations	7,777	11,641	10,400

FOREST SERVICE

YOUTH CONSERVATION CORPS ^{1/}

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976	:7/1-9/30/76
	:Estimate:	Estimate
Youth Conservation Corps	\$10,400	\$8,054

^{1/} Includes allocation to Department of the Interior: 1976, \$5,200 and 7/1-9/30/76, \$4,027.

FOREST SERVICE

YOUTH CONSERVATION CORPS

For expenses necessary to carry out the provisions of the Act of August 13, 1970, as amended by Public Law [92-597] 93-408, [[\$10,240,000]] \$10,400,000, to remain available until the end of the fiscal year following the fiscal year for which appropriated: *Provided*, That [[\$5,120,000]] \$5,200,000 shall be available to the Secretary of the Interior and [[\$5,120,000]] \$5,200,000 shall be available to the Secretary of Agriculture: *Provided further*, That the funds appropriated in this paragraph shall be available only upon the enactment into law of authorizing legislation].

For "Youth Conservation Corps" for the period July 1, 1976, through September 30, 1976, \$8,054,000, to remain available until the end of the fiscal year following the period for which appropriated. (Department of the Interior and Related Agencies Appropriation Act, 1975.)

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
YOUTH CONSERVATION CORPS

A-11-32a

Program and Financing (in thousands of dollars)

Identification code		U XXX	U XXX ^{te}	U XXX ^{te}
05-96-1125-0-1-302		7/1-9/30/76		
<u>Program by activities:</u>				
Program development (program costs, funded) 1/		8,054		
10	Total obligations	8,054		
<u>Financing:</u>				
21	Unobligated balance available, July 1	-3,081		
24	Unobligated balance available, September 30	3,081		
40	<u>Budget authority (appropriation)</u>	8,054		
<u>Relation of obligations to outlays:</u>				
71	Obligations incurred, net	8,054		
72	Obligated balance, July 1	4,208		
74	Obligated balance, September 30	-4,220		
90	Outlays	8,042		
1/ Includes capital outlay as follows:		\$40 thousand.		

FOREST SERVICE

YOUTH CONSERVATION CORPS

Justification for Transition Period July 1-September 30, 1976

An estimate of \$8,054,000 is requested for this appropriation which is about 79 percent of proposed funding at the fiscal year 1976 budget estimate of \$10,240,000.

Since this program provides gainful employment for young men and women in conservation work during the summer months, requirements for the transition period are much greater than pro rata of the 1976 request.

The relationship of the obligations and outlays for the period July 1 through September 30, 1974, to the total fiscal year 1976 program was used as a basis for determining the obligations and outlays for the transition period. The current rates were applied to the fiscal year 1976 program.

ADMINISTRATIVE PROVISIONS, FOREST SERVICE

Proposed Changes in Language

Changes in language are proposed as follows. New language is underscored and deleted matter is enclosed in brackets.

- 1 Appropriations to the Forest Service for the current fiscal year, and
2 for the period July 1, 1976, through September 30, 1976, shall be
3 available for: (a) purchase of not to exceed [three] two hundred [thirty-
three] eighty-one passenger motor vehicles of which two hundred [sixty-
seven] twenty-five shall be for replacement only, (b) employment
1 pursuant to and not to exceed \$100,000 for fiscal year 1976, and
\$100,000 for the period July 1, 1976, through September 30, 1976, for
employment (f) acquisition of land and interests therein for
sites for administrative and not to exceed \$75,000 for fiscal year 1976,
1 and \$75,000 for the period July 1, 1976, through September 30, 1976, for
research purposes (h) not to exceed \$100,000 for fiscal year 1976,
1 and \$100,000 for the period July 1, 1976, through September 30, 1976,
for expenses pursuant to the Volunteers in the National Forests Act
.....
- 4 [None of the funds made available under this Act shall be obligated or
expended to change the boundaries of any region, to abolish any region,
to move or close any regional office for research, State and private
forestry, and National Forest System administration of the Forest Service,
Department of Agriculture, without the consent of the Committee on
Appropriations and Committee on Agriculture and Forestry in the U.S. Senate
and U.S. House of Representatives.]

Change 1 would provide necessary authority to continue various activities during the transition period of July 1 through September 30, 1976.

Changes 2 and 3 would provide authority to purchase 281 passenger motor vehicles of which 225 will be replacements.

PASSENGER CARRYING VEHICLES

Replacements

During fiscal year 1976, it is proposed that the Forest Service replace 225 passenger carrying vehicles. Of these, 220 will meet replacement standards and five will require replacement because of accidents or excessive maintenance costs.

Dependability of passenger carrying vehicles is an important factor in keeping work programs on schedule and in meeting emergencies. Vehicle breakdowns while on field travel cause disruptions and delays in field work as well as loss of effective work time of employees. The continued use of over-aged equipment is undesirable from a safety standpoint since most of it is operated over rough, narrow, winding roads in mountainous country under adverse conditions. This use generally results in excessive operating and repair expenses when vehicles reach or exceed replacement standards.

In order to maintain passenger carrying vehicles in a safe and satisfactory operating condition, it is the policy of the Forest Service to schedule periodic preventive maintenance inspections, services, and tune-ups to reduce the necessity for costly repairs and major overhauls, and to minimize lost time resulting from field breakdowns.

It is desirable to maintain a reasonable balance in the age class of the passenger vehicle inventory. The age class distribution is based upon conforming with replacement standards which recognize that some units will be retired under the age standards and others under the use standard. Prescribed replacement standards, although applicable, are not always appropriate for all Forest Service vehicles because of the wide range of operating conditions and the comparatively short field season in many of the National Forests at higher elevations. Decision on replacement of passenger-carrying vehicles which reach replacement age is based on an

appraisal of each unit. This involves a review of the history record combined with a mechanical inspection of the vehicle's condition and repair liability. When such appraisal indicates that the vehicle is satisfactory for further service without unreasonable repair expenditures, it is retained and assigned to lighter work, even though such action tends to upset the age standards for the fleet inventory.

The vehicles selected for replacement are those which cannot be operated another season without excessive repair expense. They are unsatisfactory for further use both as to safety and mechanical condition. The replacement authorization requested is within the normal annual replacement standards prescribed by the General Services Administration.

Essentially all passenger-carrying vehicles are pooled for use by all activities with replacement of pooled units financed from a Working Capital Fund. All appropriations reimburse this fund in ratio to use of vehicles on activities financed by the respective appropriations.

None of the replacements requested will be assigned to areas served or scheduled to be served by Interagency pools.

Additions

It is proposed that the Forest Service purchase 56 additional passenger carrying vehicles to replace pickups, carryalls and sedan deliveries. Since sedans and station wagons are better suited to the needs and are less costly to operate, we prefer replacement with passenger-carrying vehicles.

Sedans or station wagons cost less to operate and maintain than a truck. During fiscal year 1975, the Forest Service is replacing 66 light trucks, such as carryalls, pickups, panels, and sedan delivery trucks, with sedans and station wagons. The total estimated cost savings is \$13,200 per year. The substitution of 56 passenger-carrying vehicles for light trucks in fiscal year 1976 would result in an additional savings of about \$11,200 each year.

The Forest Service analyzes current work plans and program in determining its overall passenger-carrying vehicle requirements. This analysis includes a careful study of the number of vehicles needed at each field station using as a guiding principle the ownership of only the minimum number of dependable units required to serve programs for which funds are budgeted. Also, it is Forest Service policy to utilize Interagency Motor Pools or commercial car rental services to the fullest practicable extent. Passenger car use is restricted and is integrated with various activities so as to attain good utilization of all vehicles.

Additions are financed from program funds in direct relationship to the anticipated use of the equipment. Distribution of costs to appropriations is based on analysis of use of the equipment fleet for the past three years and the estimated use for the budget year.

Number of Vehicles

The Forest Service had a fleet of 1,137 passenger-carrying vehicles at the start of the fiscal year 1975. It is planned to add 66 units and dispose of 67 units during the year, making a total of 1,136 units available at the start of fiscal year 1976, excluding possible transfers to other agencies. It is proposed that the total number of passenger-carrying vehicles be increased to 1,192 by the end of fiscal year 1976.

As of June 30, 1974, the age and mileage classes of the passenger-carrying vehicles on hand, exclusive of 28 buses, were:

Age Data

<u>Year</u>	<u>Number of Vehicles</u>
1969 and older	293
1970	156
1971	81
1972	76
1973	260
1974	<u>243</u>
Total	1,109

Mileage Data

<u>Miles</u>	<u>Number of Vehicles</u>
60,000 and over	285
50,000 to 59,999	125
40,000 to 49,999	108
30,000 to 39,999	64
20,000 to 29,999	81
10,000 to 19,999	171
0 to 9,999	<u>275</u>
Total	1,109

Use of Vehicles

Passenger-carrying vehicles are used by:

- (1) Forest officers in the protection, utilization, management, and development of the National Forests and land utilization projects and in the program for control of forest pests.
- (2) Research technicians on experimental forests, and ranges, on field research projects and forest surveys.
- (3) Foresters engaged in carrying out the laws providing for State and private forestry cooperation.
- (4) Regional office field-going administrative personnel in performing, directing, and inspecting field work.

The Forest Service is essentially a field organization and its passenger-carrying vehicles are located mainly at regional, National Forest, and ranger district headquarters, and experimental forests and ranges. There are over 225 million acres within the exterior boundaries of the National Forest.

About 631 million acres of State and private forest land are included within the areas which benefit from Federal participation in the cooperative forest program. Much of this area is without common carrier service, and most forest areas and research centers are remote from commercial travel routes, requiring extensive use of motor vehicles as a means of transportation. The major portion of transportation needs, particularly at regional and forest supervisor levels and at other larger headquarters, involves multiple passenger use and can be more expeditiously and economically met by use of sedans and station wagons than by other types of vehicles.

AIRCRAFT

Replacement of Aircraft

The 1976 estimates propose replacement of four aircraft by purchase and replacements with more suitable aircraft by transfer from other agencies as available. The Forest Service currently has 53 aircraft:

7	Single-engine reconnaissance and transport airplanes
24	Light twin-engine reconnaissance and transport airplanes
16	Medium and heavy cargo and transport airplanes (9 medium, 7 heavy)
5	T34-B lead planes (2-place scout)
<u>1</u>	Multi-engine airplane converted to an air tanker
53	

The replacements by purchase will be primarily medium twin-engine airplanes suitable for leadplane work in directing air tanker retardant dropping attack on forest fires. The North American OV-10A Bronco, currently being used by the Air Force is considered to have desirable characteristics.

Two large helicopters are on loan from the Army. These helicopters are being used for test and evaluation project in determining suitability of specific vision equipment for night helicopter operation. The equipment includes the Iroquois Night Fighter and Night Tracker (INFANT) and Forward Looking Infrared (FLIR) systems, and the night vision goggles. The loan of the helicopters will be terminated when the evaluation project is completed.

One light twin-engine airplane is modified, equipped, and used primarily for fire mapping with infrared equipment in low visibility of smoke and at night. Two medium twin-engine airplanes are modified, equipped and used primarily for high altitude fire detection usually at night with infrared equipment.

The multi-engine airplane obtained from the military was converted to air tanker configuration for test and evaluation project to determine if suitable for dropping retardants. It is now being used in a research project on optimum size and shape tanks for retardant dropping.

The multipurpose reconnaissance and transport airplanes are used primarily to transport smokejumpers, firefighters, administrative personnel, equipment and supplies to remote and inaccessible areas where commercial services are inadequate or not available for protection and suppression of forest fires. Other use is to locate and survey timber stand and vegetation conditions such as insect infestations, blowdown, diseased areas, undesirable species, and to appraise resources and damage and evaluate effectiveness of control.

The T34-B lead airplanes are primarily single-purpose military model aircraft used by air tanker bosses to direct and control the dropping of retardants on forest fires by contract air tankers. These are to be replaced with light twins to provide two engine safety and improved efficiency.

The services of suitable airplanes to perform specific Forest Service missions are becoming increasingly more difficult to obtain from commercial sources. In some locations only the Forest Service needs certain type of flights and they are insufficient in number to warrant operators furnishing the service. Aviation operators must therefore give first consideration to furnishing services for best revenue. In many instances the aircraft available is not suitable for Forest Service work.

Four heavy twin-engine transport airplanes are leased and operated for dual purpose in transporting firefighting crews or dropping smokejumpers. Three leased light twins fill additional requirements for leadplanes in directing air tanker retardant attack on fires.

Two single-engine T-28's are on temporary loan from the Navy for evaluation as air tanker leadplanes, especially where faster speed is needed.

Aircraft purchases are financed from either appropriated funds or the Forest Service Working Capital Fund, or a combination of both. Replacement costs of aircraft partially or completely destroyed in a crash accident are financed from program funds in relationship to anticipated use.

Change 4 would eliminate the language which was added to the Appropriations Bill by the Appropriations Committees to assure that the present Forest Service regional system is maintained and that the Congress has a role in any further regional reorganization plans.

If the Appropriations Committees were to continue to include language in appropriations bills requiring Congressional approval of reorganization proposals, our ability to implement needed reorganizations would be considerably slowed.

The Forest Service has made many changes in organization through the years to obtain the most efficient economic operation. These changes came as a result of extensive study and considered improved transportation, technology and methods of doing business. The administration of the National Forest System has been improved as a result of these changes.

This language might limit the ability of Forest Service management to take advantage of opportunities to improve efficiency and effectiveness by shifting Regional boundaries.

It is proposed that this language not be included in future appropriation bills.

The Forest Service plans to obtain the views of the Appropriations Subcommittees and the Agriculture and Forestry Committees in the House and Senate and members of Congress who would be affected before implementing regional reorganization plans even without this language.

ROADS AND TRAILS FOR STATES, NATIONAL FORESTS FUND
(Permanent appropriation)

Appropriation, 1974	\$45,468,547
Appropriation, 1975	47,003,064
Estimate, 1976	47,975,000
Change (due to an estimated increase in National Forest receipts in fiscal year 1975)	<u>971,936</u>

The permanent appropriation of 10 percent of National Forest receipts pursuant to the Act of March 4, 1913 (16 USC 501) is transferred to and merged with the annual appropriation for Forest Roads and Trails. The explanation of the use of these funds is included in the justification for that appropriation item.

EXPENSES, BRUSH DISPOSAL
(Permanent appropriation)

		Permanent full-time positions
Appropriation, 1974	\$25,199,361	518
Estimate, 1975	30,000,000	548
Estimate, 1976	33,000,000	599
Change	<u>+3,000,000</u>	<u>+51</u>

PROJECT STATEMENT

	:	:	:	:	
Project	1974	1975 Estimate	1976 Estimate	:	Increase or decrease
Brush disposal	\$22,975,199	\$29,637,000	\$32,028,000	:	\$2,391,000
Unobligated balance brought forward	-23,553,865	-25,778,027	-26,141,027	:	-363,000
Unobligated balance carried forward	25,778,027	26,141,027	27,113,027	:	972,000
<u>Appropriation or estimate</u>	<u>25,199,361</u>	<u>30,000,000</u>	<u>33,000,000</u>	:	<u>+3,000,000</u>

GOAL: To increase the productivity of forest lands.

An increase of \$2,391,000 in program level in 1976, together with an increase of 51 permanent full-time positions, is proposed.

Timber cutting usually increases the fire hazard because of dry fuel increase in the form of logging slash. This slash may also:

- (1) Impair reforestation.
- (2) Contribute to the buildup of insect populations.
- (3) Cause damage to stream channels.
- (4) Degrade esthetics of the forest environment.

When disposal of brush and other debris is necessary, National Forest timber sale contracts require treatment or deposit of funds for treatment of debris resulting from timber sale operations. When economical and expedient the work is performed by the timber purchaser. When not done by the purchaser, it is done by the Government, using deposits to cover costs of the work as authorized under Section 6 of the Act of April 24, 1950 (16 USC 490).

The effect of timber cutting and the manner of treating slash vary widely among regions. Brush disposal may be accomplished in several ways such as crushing, chipping, burning, or extra fire protection through the critical phase of natural disposal. Combinations of these are often used.

In the Eastern Regions, low volume cut per acre, high utilization, and rapid decomposition reduce the slash disposal work necessary. Exceptions occur in sales where a heavy cut per acre is made, such as the jack pine stands of Minnesota. In such areas, slash is crushed and mixed with mineral soil by disking with heavy equipment. This reduces the hazard and provides a good seedbed to aid regeneration. Treatment of slash to prevent insect epidemics is sometimes necessary in these areas.

In contrast, more slash disposal is required on most sale areas of the West. High volume per acre generally produces heavy slash. Long dry periods with lightning and man-caused fire risk result in extremely hazardous fire potential. The warm, humid conditions necessary for rapid slash deterioration seldom occur. Treatment varies greatly with different methods of cutting, but generally requires some burning to reduce volumes of slash fuels. Slash may be burned in place or piled and burned under varied weather conditions. Fuel arrangements are planned which allow burning at times when smoke dispersal is favorable and will not influence air quality in population areas. The emphasis on more complete timber utilization will reduce the volumes of slash fuels that will be disposed of by burning.

Within regions, slash disposal follows general prescriptions. Individual needs of each sale are planned and appraised prior to advertisement of the sale. The appropriate specific requirements are incorporated into each timber sale contract. In each instance, the method used will require adequate ecological, environmental, and resource protection at the least expense.

LICENSEE PROGRAMS
(Permanent appropriation)

		<u>Permanent full-time positions</u>
Appropriation, 1974	\$209,432	3
Estimate, 1975	265,000	4
Estimate, 1976	250,000	5
Change	<u>-15,000</u>	<u>+1</u>

PROJECT STATEMENT

	:	:	:	:	:
Project	1974	1975 Estimate	1976 Estimate	Increase or decrease	
Licensee Programs:					
Smokey Bear	\$181,958:	\$279,000:	\$278,000:	-\$1,000	
Woodsy Owl	- :	30,000:	50,000:	20,000	
Unobligated balance brought forward .	-190,025:	-217,499:	-173,499:	44,000	
Unobligated balance carried forward .	217,499:	173,499:	95,499:	-78,000	
Appropriation or estimate	209,432:	265,000:	250,000:	-15,000	

An increase of one permanent full-time position is proposed.

Fees for the use of characters by private enterprises are collected under regulations promulgated by the Secretary and are available as follows:

- (1) Smokey Bear--for furthering the nationwide forest fire prevention campaign (18 USC 711 and 31 USC 488a).
- (2) Woodsy Owl--for promoting wise use of the environment and programs which foster maintenance and improvement of environmental quality (31 USC 488b-3--6).

Examples of Recent Accomplishments

Installed new interpretive exhibit at Smokey's Home in the National Zoo, including the picture story of Smokey, Goldie and Little Smokey, and a clothes locker for Smokey's hat, shovel, and blue jeans.

Provided a basic grant for a new forest fire prevention film to be created and produced by San Diego State University. This badly-needed film will reflect the ideas of several undergraduates, with faculty evaluation and supervision of the film, and professional editing.

Expanded the Smokey Bear awards program to include a Silver Smokey award to Canadian Alan Beaven, Manager of the Manitoba Forestry Association. Also, during the past year, a Golden Smokey went to Walt Disney Productions for public service donations to the program from 1943 to 1973.

LICENSEE PROGRAMS
(Permanent appropriation)

Proposed Change in Appropriation

Present Structure	Proposed Structure
FOREST FIRE PREVENTION	LICENSEE PROGRAMS:
	Woodsy Owl
	Smokey Bear

The following licensee programs have been authorized:

Woodsy Owl - for promoting wise use of the environment and programs which foster maintenance and improvement of environmental quality (31 USC 488b-3--6).

Smokey Bear - for furthering the nationwide forest fire prevention campaign (18 USC 711 and 31 USC 488a).

Fees for the use of these characters by private enterprises are collected under regulations promulgated by the Secretary of Agriculture and are available for the purposes indicated above.

Because of the similarities in depositing fees and obligating those fees for furthering the campaigns of Woodsy Owl and Smokey Bear, the appropriation title was changed from Forest Fire Prevention to Licensee Programs by the Treasury Department. The Licensee Programs appropriation includes both the Smokey Bear and Woodsy Owl programs. The change facilitates apportionment and reporting by merging the programs into one mainhead appropriation. The change would also provide for any future licensee programs to be incorporated in the one appropriation.

RESTORATION OF FOREST LANDS AND IMPROVEMENTS
(Permanent appropriation)

Appropriation, 1974	\$68,205
Estimate, 1975	50,000
Estimate, 1976	<u>50,000</u>

PROJECT STATEMENT

	:	:	:	:	:
Project	1974	1975 Estimate	1976 Estimate	Increase or decrease	
Restoration of forest lands and improve-	:	:	:	:	
ments	\$23,027:	\$112,777:	\$50,000:	-\$62,777	
Unobligated balance brought forward	-17,599:	-62,777:	- - :	62,777	
Unobligated balance carried forward	62,777:	- - :	- - :	- -	
Appropriation or estimate	68,205:	50,000:	50,000:	- "	

Recoveries from cash bonds or forfeitures under surety bonds by permittees or timber purchasers, who fail to complete performance of improvement, protection, or rehabilitation work required under the permit or timber sale contract, are used to cover the cost to the United States of completing such work on lands under Forest Service administration. Funds received as settlement of a claim are used for improvement, protection, or rehabilitation made necessary by the action which led to the cash settlement (Act of June 20, 1958, 16 USC 579c).

No permanent full time positions are assigned to this appropriation.

PAYMENT TO MINNESOTA (COOK, LAKE, AND ST. LOUIS COUNTIES)
FROM THE NATIONAL FORESTS FUND
(Permanent appropriation)

Appropriation, 1974	\$259,038
Appropriation, 1975	259,038
Estimate, 1976	<u>259,038</u>

PROJECT STATEMENT

	:	:	:	:	:
Project	1974	1975 Estimate	1976 Estimate	Increase or decrease	
Payment to Minnesota from the National Forests Fund (appropriation or estimate)	\$259,038:	\$259,038:	\$259,038:	-	-

The Act of June 22, 1948, as amended (16 USC 577c-577h) provides that the Secretary of the Treasury, upon certification of the Secretary of Agriculture, shall pay to the State of Minnesota at the close of each fiscal year from any National Forest receipts not otherwise appropriated an amount equivalent to three-fourths of one percent of the fair appraised value of certain National Forest lands in the counties of Cook, Lake, and St. Louis situated within the Superior National Forest. The Act further provides that payment to the State shall be distributed to each of these counties in conformity with the fair appraised value of such National Forest lands in each county.

PAYMENTS TO COUNTIES, NATIONAL GRASSLANDS
(Permanent appropriation)

Appropriation, 1974	\$586,381
Estimate, 1975	586,000
Estimate, 1976	<u>586,000</u>

PROJECT STATEMENT

	:	:	:	:	
Project	1974	1975 Estimate	1976 Estimate	:	Increase or decrease
Payment to counties (appropriation or estimate)	\$586,381	\$586,000	\$586,000	-	-

At the end of each calendar year, 25 percent of the revenues from use of submarginal lands are paid to counties under the provisions of Title III of the Bankhead-Jones Farm Tenant Act, approved July 22, 1937 (7 USC 1012). Payments are made on the provision that they are used for school or road purposes, or both.

PAYMENTS TO SCHOOL FUNDS, ARIZONA AND NEW MEXICO
(Permanent appropriation)

Appropriation, 1974	\$124,307
Estimate, 1975	190,862
Estimate, 1976	191,000
Change	+138

PROJECT STATEMENT

	:	:	:	:	:
Project	1974	1975 Estimate	1976 Estimate	Increase or decrease	
Payments to school funds	:	:	:	:	
(appropriation or estimate)	\$124,307	\$190,862	\$191,000	\$138	
	:	:	:	:	

Under provisions of the Act of June 20, 1910 (36 Stat. 562, 573) certain areas within National Forests were granted to the States for school purposes. The percentage that these lands are of the total National Forest area within the State is used in determining payments to the States. The receipts from all National Forest land within the State are used as the basis for applying the percentage. For example, if total receipts for the State are \$100,000 and if 10 percent of lands are in the "granted for school purposes" category, the payment to the State would be \$10,000. The amounts so paid are deducted from the net receipts before computing the 25 percent payments to States.

As soon after the close of the fiscal year as the receipts from National Forests and the area of school lands in the States of Arizona and New Mexico are determined, the payments are made to the States. Payments in fiscal year 1973 to Arizona were \$113,212 and to New Mexico \$831.

PAYMENTS TO STATES, NATIONAL FORESTS FUND
(Permanent appropriation)

Appropriation, 1974	\$113,668,668
Estimate, 1975	119,482,282
Estimate, 1976	<u>117,862,000</u>
Change	<u>-1,620,282</u>

PROJECT STATEMENT

	:	:	:	:	: Increase or decrease
Project	:	1974	:	1975 Estimate	:
	:		:	1976 Estimate	:
Payments to States	:		:		:
(appropriation or estimate) ..	:	\$113,668,668	:	\$119,482,282	:
	:		:	\$117,862,000	:
	:		:		-\$1,620,282

The Act of May 23, 1908, as amended (16 USC 500) requires, with a few exceptions, that 25 percent of all money received from the National Forests during any fiscal year be paid to the States in which the forests are located, for the benefit of public schools and public roads of the county or counties in which such National Forests are situated. The amount of this appropriation varies each year in direct proportion to National Forest receipts during the previous fiscal year.

The amounts set aside from receipts collected from the sale of National Forest timber, grazing, special use permits, power, mineral leases, and admission and user fees, before the 25 percent is applied are listed below:

- (1) Payment to the State of Minnesota covering certain National Forest lands in Counties of Cook, Lake, and St. Louis situated within the Superior National Forest is made under the terms of the Act of June 22, 1948, as amended (16 USC 577c-577h). Receipts collected from the areas covered by this Act are excluded when the 25 percent payment to the State of Minnesota is computed.
- (2) For lands in certain counties in Utah, Nevada, and California, the States receive 25 percent of receipts only after funds, if made available by Congress, have been set aside for the acquisition of National Forest lands within the specified National Forests under the terms of special acts authorizing appropriations from forest receipts for this purpose.
- (3) Payments to the States of Arizona and New Mexico under the provisions of the Act of June 20, 1910 (36 Stat. 562, 573), of shares of the gross receipts from the National Forests in those States which are proportionate to the areas of land granted to the States for school purposes within the National Forests.

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
PERMANENT APPROPRIATIONS

Program and Financing (in thousands of dollars)

[illegible]

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
PERMANENT APPROPRIATIONS

A-11-32a

Program and Financing (in thousands of dollars)--continued

Identification code	19 74 actual	19 75 estimate	19 76 estimate
05-96-9999-0-2-999			
Distribution of outlays by account:			
Roads and trails for States, National Forests Fund	45,469	47,003	47,975
Brush disposal	21,307	27,282	31,105
Licensee Programs, Forest Service	188	264	323
Restoration of forest lands and improvements	26	97	65
Payment to Minnesota	259	259	259
Payments to counties, national grasslands	586	586	586
Payments to school funds, Arizona and New Mexico	124	191	191
Payments to States, National Forests Fund	113,669	119,482	117,862
1/ Includes capital outlay as follows: 1974, \$325 thousand; 1975, \$750 thousand; 1976, \$1,000 thousand.	1974, \$325 thousand; 1975, \$750 thousand;		
(Mono cast: 21.5)	(Mono cast: 5)	(Mono cast: 5)	243 (Mono cast: 4.9)

STANDARD FORM 304
May 1969, Bureau of the Budget
Circular No. A-11, Revised.
304-103

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
PERMANENT APPROPRIATIONS

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-9999-0-2-999	1974 actual	1975 estimate	1976 estimate
Personnel compensation:			
11.1 Permanent positions.....	6,142	6,971	7,940
11.3 Positions other than permanent.....	6,554	7,425	8,500
11.5 Other personnel compensation.....	1,248	1,302	1,380
11.8 Special personal services payments.....	2	2	5
Total personnel compensation.....	13,946	15,700	17,825
Personnel benefits:			
12.1 Civilian.....	1,143	1,284	1,445
13.0 Benefits for former personnel			
21.0 Travel and transportation of persons.....	196	214	300
22.0 Transportation of things.....	1,115	1,375	1,800
23.0 Rent, communications, and utilities.....	692	1,025	1,250
24.0 Printing and reproduction.....	54	85	100
25.0 Other services.....	49,288	53,929	53,936
26.0 Supplies and materials.....	1,140	1,850	2,000
31.0 Equipment.....	971	1,450	1,500
32.0 Lands and structures.....	221	275	350
33.0 Investments and loans			
41.0 Grants, subsidies, and contributions.....	114,638	120,518	118,898
42.0 Insurance claims and indemnities.....	14	15	15
43.0 Interest and dividends			
44.0 Refunds			
Subtotal	183,418	197,720	199,419
95.0 Quarters and subsistence charges.....	-131	-140	-140
99.0 Total obligations.....	183,287	197,580	199,279

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
PERMANENT APPROPRIATIONS

A-11-34a

Personnel Summary

Identification code 05-96-9999-0-2-999	19 74 actual	19 75 estimate	19 76 estimate
Total number of permanent positions ..	521	552	604
Full-time equivalent of other positions	870	923	1,030
Average paid employment	1,310	1,394	1,553
Average GS grade	8.61	8.67	8.66
Average GS salary	\$14,322	\$15,147	\$15,174
Average salary of ungraded positions .	\$11,174	\$11,794	\$11,794
(Mono cast: 21.5)	(Mono cast: 5)	(Mono cast: 5)	245 (Mono cast: 4.0)

FOREST SERVICE

PERMANENT APPROPRIATIONS

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976	:7/1-9/30/76
	:Estimate	:Estimate
PERMANENT APPROPRIATIONS:		
Expenses, Brush Disposal	\$33,000	\$9,000
Licensee Programs:		
Smokey Bear	200	50
Woodsy Owl	50	25
Restoration of forest lands and improvements	50	15
Roads and Trails for States, National Forests Fund	47,975	51,600
Payment to Minnesota	259	259
Payments to Counties, National Grasslands	586	310
Payments to School Funds, Arizona and New Mexico	191	191
Payments to States, National Forests Fund	117,862	129,000
TOTAL, PERMANENT APPROPRIATIONS	<u>200,173</u>	<u>190,450</u>

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
PERMANENT APPROPRIATIONS

Program and Financing (in thousands of dollars)

Identification code	X X	X X	X X
05-96-9999-0-2-999	7/1-9/30/76		
<u>Program by activities:</u>			
<u>Direct program:</u>			
1. Roads and trails for States, National Forests Fund .	51,600		
2. Brush disposal	10,000		
3. Licensee Programs, Forest Service	75		
4. Restoration of forest lands and improvements	15		
5. Payment to Minnesota ...	259		
6. Payments to counties, National Grasslands ...	310		
7. Payments to school funds, Arizona and New Mexico	191		
8. Payments to States, National Forests Fund .	129,000		
<u>Total program costs, funded</u> <u>1/</u>	191,450		
10 Total obligations	191,450		
<u>Financing:</u>			
21 Unobligated balance available, July 1	-27,208		
24 Unobligated balance available, September 30	26,208		
60 <u>Budget authority (appropriation)</u> <u>(permanent, indefinite,</u> <u>special funds)</u>	190,450		
1/ Includes capital outlay as follows: \$250 thousand.			

STANDARD FORM 300
July 1964, Bureau of the Budget
Circular No. A-11, Revised.
300-101

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
PERMANENT APPROPRIATIONS

[illegible]

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
PERMANENT APPROPRIATIONS

Program and Financing (in thousands of dollars)--continued

Identification code 05-96-9999-0-2-999	K FBI	K eBOOK	K eBOOK
	7/1-9/30/76		
Distribution of outlays by account:			
Roads and trails for States, National Forests Fund	51,600		
Brush disposal	12,210		
Licensee Programs, Forest Service	60		
Restoration of forest lands and improvements	15		
Payment to Minnesota	259		
Payments to counties, national grasslands .....	.....	
Payments to school funds, Arizona and New Mexico	191		
Payments to States, National Forests Fund	129,000		
(Mono cast: 21.8)	(Mono cast: 5)	(Mono cast: 5)	(Mono cast: 4.9)

FOREST SERVICE

PERMANENT APPROPRIATIONS

Justification for Transition Period July 1-September 30, 1976
Budget Authority -- in thousands

	7/1-9/30/76 Estimate	Percent of FY 1976 Estimate
(1) <u>Expenses, Brush Disposal</u>	\$9,000	27
Receipts are derived from deposits made by timber purchasers to cover costs of work necessary to treat debris resulting from timber sale operations.		
(2) <u>Licensee Programs</u>	75	30
Funds are derived from fees collected for the use of the "Smokey Bear" and "Woodsy Owl" characters by private enterprises.		
(3) <u>Restoration of Forest Lands and Improvements</u>	15	30
Recoveries from cash bonds or forfeitures under surety bonds by permittees or timber purchasers, who fail to complete performance of improvement, protection, or rehabilitation work required under the permit or timber sale contract, are used to cover the cost of completing such work on lands under Forest Service administration.		
(4) <u>Roads and Trails for States, National Forests Fund</u>	51,600	104
Approximately 10 percent of all money received from the National Forests are merged with the Roads and Trails appropriation to be used for the construction and maintenance of roads and trails in the National Forest System.		
(5) <u>Payment to Minnesota</u>	259	100
At the close of each fiscal year payment is made to Minnesota under the Act of June 22, 1948, as amended, for distribution to the counties of Cook Lake, and St. Louis situated within the Superior National Forest. Funds are derived from National Forest receipts.		
(6) <u>Payments to School Funds, Arizona and New Mexico</u> ..	191	100
At the close of the fiscal year, a portion of the funds derived from receipts from the National Forests are paid to Arizona and New Mexico under the Act of June 20, 1910.		
(7) <u>Payments to States, National Forests Fund</u>	129,000	100
Under the Act of May 23, 1908, approximately 25 percent of monies received from the National Forests are paid to the States in which the forests are located for the benefit of public schools and roads of the counties in which such National Forests are situated.		

	7/1-9/30/76 <u>Estimate</u>	Percent of FY '1976 <u>Estimate</u>
(8) <u>Payments to Counties, National Grasslands</u>	\$310	53

At the close of each calendar year, 25 percent of revenues from use of submarginal lands are paid to counties under the Bankhead-Jones Farm Tenant Act.

Items (1) - (3). The amounts shown for these items are projected to be collected and made available for appropriation during the transition period.

Items (4) - (7). The amounts shown are based on deposits of money received from National Forests during the period July 1, 1975, through June 30, 1976. These funds are not available for appropriation until after the close of the fiscal year in which collected. The increases in items (4) and (7) in the transition period over fiscal year 1976 are due to greater receipts in fiscal year 1976 than in fiscal year 1975.

Item (8). Amount shown is based on anticipated receipts for the period January 1 through June 30, 1976.

WORKING CAPITAL FUND

The Working Capital Fund was established by the Act of August 3, 1956 (16 USC 579b), as amended by the Act of October 23, 1962 (16 USC 579b). It is a self-sustaining revolving fund which provides services to National Forests, Experiment Stations, and when necessary, to other Federal agencies, and as provided by law, to State and private agencies and persons who cooperate with the Forest Service in fire control and other authorized programs.

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>Change</u>
Permanent full-time positions	735	736	785	+49

An increase of \$3,908,000 in program level is proposed in fiscal year 1976, together with an increase of 49 permanent full-time positions. Total 1976 program level proposed is \$43.8 million.

The following services were provided by the Working Capital Fund in fiscal year 1974:

1. Equipment service.--This service owns, operates, maintains, and replaces approximately 13,500 pieces of common use motor driven and similar equipment. This equipment is rented to administrative units, i.e., National Forests, Experiment Stations and other units, and in some cases to other agencies, at rates which recover the cost of operation, repair and maintenance, management, and depreciation. The rates also include an increment which provides additional cash which when added to depreciation earnings and the residual value of equipment provides sufficient funds to replace the equipment. This service operates 86 repair shops.
2. Aircraft service.--This service operates and maintains Forest Service owned aircraft used in fire surveillance and suppression and in other Forest Service programs. The aircraft are based at 13 locations and are rented to National Forests, Experiment Stations, and in some cases to other agencies, at rates which recover the cost of depreciation, operation, maintenance, repair, and improvements in the airworthiness of the aircraft. Aircraft replacement costs are financed from either appropriated funds or the Forest Service Working Capital Fund, or a combination of both. This service operates three aircraft maintenance shops.
3. Supply service.--This service operates the following common services:
 - Central Supply.--Grass seed is procured, stored and issued from two locations. Issuances and sales are made to National Forests, Experiment Stations, and others at prices which recover cost.
 - Photo reproduction.--Six photo reproduction laboratories store, reproduce, and supply aerial photographs, aerial maps, and other photographs of National Forest lands. The photographic reproductions are sold to National Forests, Experiment Stations, and others at cost.
 - Sign shop.--These include four small shops which manufacture and supply special signs for the National Forests for use in regulating traffic and as information to the public and other users of the National Forests. The signs are sold to National Forests and Experiment Stations at cost.
 - Subsistence.--There are 22 facilities which prepare and serve meals at cost to Forest Service work crews working in remote areas where adequate public restaurant facilities are not available.
 - Cribbing.--This facility is located on the Angeles National Forest, California to manufacture special concrete structural material used in embankments for erosion control purposes along access roads in the National Forests. This material is sold to National Forests at prices which recover costs.
 - Nurseries.--This service operates 11 forest tree nurseries and cold storage facilities for storage of tree and seed stock and one seed extractory. Tree seed is procured, cleaned, bagged, and stored in refrigerated facilities. Tree and seed stock is sold to National Forests, States, and other Federal agencies at cost.

Volume of Business for the Various Major Activities
of the Working Capital Fund

(In thousands of dollars)

	<u>1974</u> <u>Actual</u>	<u>1975</u> <u>Estimate</u>	<u>1976</u> <u>Estimate</u>
Equipment service	29,043	31,831	33,761
Aircraft service	1,376	1,503	1,416
Supply service	2,211	2,109	2,218
Nursery service	3,932	4,059	4,345
Totals	<u>36,562</u>	<u>39,502</u>	<u>41,740</u>

The Working Capital Fund requires no cash appropriation. Initially, its assets were purchased by regular Forest Service appropriations and were donated to the fund. Where expansion of facilities is required that expansion is financed by Forest Service regular appropriations or Working Capital Funds when available.

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
WORKING CAPITAL FUND

Program and Financing (in thousands of dollars)

Identification code	19 74 actual	19 75 estimate	19 76 estimate
05-96-4605-0-4-302			
<u>Program by activities:</u>			
Operating costs, funded:			
1. Equipment service	20,823	21,616	23,695
2. Aircraft service	1,427	1,394	1,603
3. Supply service	2,152	1,981	2,518
4. Nurseries	3,677	3,926	4,555
Total operating costs	28,079	28,917	32,371
Capital outlay, funded:			
1. Equipment service	9,680	11,316	11,317
2. Aircraft service	144	9	20
3. Supply service	43	70	80
4. Nurseries	-115	45	50
Total capital outlay	9,752	11,440	11,467
Total program costs, funded	37,831	40,357	43,838
Change in selected resources . (undelivered orders)	574	-453	-26
Less inventory received at no cost	-328	.....	.....
10 Total obligations	38,077	39,904	43,812
<u>Financing:</u>			
Receipts and reimbursements from:			
11 Federal funds:			
Revenue:			
Equipment service	-26,070	-28,541	-29,967
Aircraft service	-1,376	-1,503	-1,416
Supply service	-2,211	-2,109	-2,218
Nurseries	-3,932	-4,059	-4,345
Income provision for increased cost of equipment replacement	-2,492	-2,817	-3,156

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
WORKING CAPITAL FUND

A-11-32f

Program and Financing (in thousands of dollars)--continued

Identification code		19 74 actual	19 75 estimate	19 76 estimate
05-96-4605-0-4-302				
<u>Financing--continued</u>				
	Unfilled customer orders	-103	6	31
14	Non-Federal sources: Proceeds from sale of equipment and other assets	-2,079	-2,020	-2,424
21	Unobligated balance available, start of year	-5,669	-5,855	-6,994
24	Unobligated balance available, end of year	5,855	6,994	6,677
	<u>Budget authority</u> .....	.....	.....	.....
<u>Relation of obligations to outlays:</u>				
71	Obligations incurred, net	-186	-1,139	317
72	Obligated balance, start of year	7,414	7,656	7,124
74	Obligated balance, end of year	-7,656	-7,124	-7,791
90	Outlays	-428	-607	-350

(Mono cast: 21.5)

(Mono cast: 5)

(Mono cast: 5)

(Mono cast: 4.9)

Revenue and Expense (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
Operating income or loss (-):			
Equipment service:			
Revenue	26,070	28,541	29,967
Expense	-27,780	-29,262	-30,428
Net operating income or loss, Equipment service	-1,710	-721	-461
Aircraft service:			
Revenue	1,376	1,503	1,416
Expense	-1,578	-1,605	-1,383
Net operating income, Aircraft service	-202	-102	33
Supply service:			
Revenue	2,211	2,109	2,218
Expense	-2,229	-2,059	-2,203
Net operating income or loss, Supply service	-18	50	15
Nurseries:			
Revenue	3,932	4,059	4,345
Expense	-4,050	-4,065	-4,302
Net operating income, Nurseries	-118	-6	43
Net operating income or loss (-), total	-2,048	-779	-370
Nonoperating income or loss (-):			
Proceeds from sale of equipment	2,079	2,020	2,424
Net book value of assets sold	-1,598	-1,547	-1,786
Net gain from sale of equipment	481	473	638
Income provision for increased cost of equipment replacements	2,492	2,817	3,156
Net nonoperating income	2,973	3,290	3,794
Net income for the year	925	2,511	3,424
(Mono cast: 21.5)	(Mono cast: 5)	(Mono cast: 5)	(Mono cast: 4.9) 256

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
WORKING CAPITAL FUND

A-11-37b

Financial Condition (in thousands of dollars)

Identification code	1973 actual	1974 actual	1975 estimate	1976 estimate
Assets:				
Fund balance with Treasury	13,083	13,511	14,118	14,468
Accounts receivable ..	1,550	1,719	1,814	1,700
Deferred charges, etc. ....	.....	655	655	705
Inventories	7,092	7,421	7,421	7,421
Fixed assets, net	47,155	50,251	53,082	56,962
Total assets	68,880	73,557	77,090	81,256
Liabilities:				
Accounts payable and accrued liabilities .	4,229	5,153	5,163	5,761
Government equity:				
Undelivered orders ...	4,917	5,162	4,709	4,683
Unobligated balance ..	5,669	5,855	6,994	6,677
Unfilled customers orders	-182	-285	-279	-248
Invested capital and earnings	54,247	57,672	60,503	64,383
Total Government equity	64,651	68,404	71,927	75,495
(Mono cast: 21.5)	(Mono cast: 5)	(Mono cast: 5)	(Mono cast: 4.9)	257

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
WORKING CAPITAL FUND

A-11-37b

Financial Condition (in thousands of dollars)--continued

Identification code	1974 actual	1975 estimate	1976 estimate
Analysis of Changes in Government Equity:			
Paid in capital:			
Opening balance	47,276	50,104	51,116
Transactions: Appropriation	2,828	1,012	144
Closing balance	50,104	51,116	51,260
Retained income:			
Opening balance	17,375	18,300	20,811
Transactions:			
Net operating income	-2,048	-779	-370
Net non-operating income	2,973	3,290	3,794
Closing balance	18,300	20,811	24,235
Total Government equity (end of year)	68,404	71,927	75,495
Non-interest bearing capital:			
Start of year	47,276	50,104	51,116
Donated assets during the year:			
Fixed assets	2,213	1,012	144
Working capital, net	615	.....	.....
End of year	50,104	51,116	51,260
Retained earnings:			
Start of year	17,375	18,300	20,811
Net income for the year	925	2,511	3,424
End of year	18,300	20,811	24,235
Total Government equity (end of year)	68,404	71,927	75,495
(Memo cast: 21.6)	(Memo cast: 6)	(Memo cast: 5)	258 (Memo cast: 4.9)

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
WORKING CAPITAL FUND

A-11-34s

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
05-96-4605-0-4-302			
Personnel compensation:			
11.1 Permanent positions	7,419	8,167	8,830
11.3 Positions other than permanent	3,375	3,727	4,020
11.5 Other personnel compensation	315	312	385
11.8 Special personal services payments	-10	2	.....
Total personnel compensation	11,099	12,208	13,235
Personnel benefits:			
12.1 Civilian	1,016	1,120	1,245
13.0 Benefits for former personnel	7	7	7
21.0 Travel and transportation of persons	201	237	250
22.0 Transportation of things	137	125	150
23.0 Rent, communications, and utilities	794	835	850
24.0 Printing and reproduction	21	25	25
25.0 Other services	4,559	2,663	3,070
26.0 Supplies and materials	10,533	10,000	11,000
41.0 Equipment	9,714	12,700	14,000
42.0 Lands and structures	27	20	25
33.0 Investments and loans			
41.0 Grants, subsidies, and contributions	3	3	3
42.0 Insurance claims and indemnities	3	1	2
43.0 Interest and dividends			
44.0 Refunds			
Subtotal	38,114	39,944	43,862
95.0 Quarters and subsistence charges	-37	-40	-50
99.0 Total obligations	38,077	39,904	43,812

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Personnel Summary

Identification code	1974 actual	1975 estimate	1976 estimate
05-96-4605-0-4-302			
Total number of permanent positions ..	735	736	785
Full-time equivalent of other positions	405	406	437
Average paid employment	1,009	1,016	1,096
Average GS grade	8.61	8.67	8.66
Average GS salary	\$14,322	\$15,147	\$15,174
Average salary of ungraded positions .	\$11,174	\$11,794	\$11,794
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DEPARTMENT OF AGRICULTURE
FOREST SERVICE
WORKING CAPITAL FUND

Program and Financing (in thousands of dollars)

Identification code		H KOEK	H KOEK	H KOEK
05-96-4603-0-4-402		7/1-9/30/76		
<u>Program by activities:</u>				
Operating costs, funded:				
1.	Equipment service	7,109		
2.	Aircraft service	480		
3.	Supply service	630		
4.	Nurseries	1,139		
	Total operating costs	9,358		
Capital outlay, funded:				
1.	Equipment service	2,829		
2.	Aircraft service	5		
3.	Supply service	20		
4.	Nurseries	13		
	Total capital outlay	2,867		
	Total program costs, funded ..	12,225		
10	Total obligations	12,225		
<u>Financing:</u>				
Receipts and reimbursements from:				
11	Federal funds:			
	Revenue:			
	Equipment service	-9,332		
	Aircraft service	-485		
	Supply service	-650		
	Nurseries	-1,152		
	Income provision for increased cost of equipment replacement	-789		
14	Non-Federal sources:			
	Proceeds from sale of equip- ment and other assets ...	-606		
21	Unobligated balance available, July 1	-6,677		
24	Unobligated balance available, September 30	7,466		
	Budget authority		

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DEPARTMENT OF AGRICULTURE
FOREST SERVICE
WORKING CAPITAL FUND

Program and Financing (in thousands of dollars)--continued

[illegible]

COOPERATIVE WORK, FOREST SERVICE (TRUST FUND)

Contributions are received from cooperators, including counties, States, timber sale operators, individuals, and associations, and are expended by the Forest Service in accordance with the terms of the applicable cooperative agreements. The work consists of protection and improvement of the National Forests, work performed for National Forest users, and forest investigations and protection, reforestation, and administration of private forest lands.

The major programs conducted under this account are described below in terms of the projects reflected in the statement at the end of this section.

- (1) Construction and Maintenance of Roads and Trails, and
- (2) Construction and Maintenance of Other Improvements.

Under the Acts of June 30, 1914 (16 USC 498) and March 3, 1925, April 24, 1950 (16 USC 572) and October 13, 1964 (16 USC 537) deposits for cooperative work are accepted from State and local government agencies, associations, Federal timber purchasers, users of roads, and others for the construction and maintenance of roads, trails, and other improvements and for performing work which is the National Forest users' responsibility, this method of performance of the work being of mutual benefit or of benefit to the public at large. Cooperative deposits received for wildlife habitat improvement for States from their hunting and fishing fees are included in this activity.

- (3) Protection of National Forest and Adjacent Non-Federal Lands. The Act of June 30, 1914 (16 USC 498) authorizes the acceptance of contributions for the protection of the National Forests and the Act of March 3, 1925, as amended by Section 5, Act of April 24, 1950 (16 USC 572), authorizes the acceptance of deposits for the protection of non-Federal lands in or near the National Forests. The major portion of the obligations is for the protection of private lands from fire. This arrangement helps both parties since there are millions of acres of non-Federal forest land intermingled with Federal ownership on the National Forests. The lands in non-Federal ownership are usually in small tracts. It would be uneconomical for the owner to set up a fire control organization for the protection of his land. The advantage to the Government is that in many cases it would be necessary to suppress the fires on the non-Federal land without reimbursement in order to protect the adjoining Federal land.
- (4) Sale Area Betterment (including reforestation). Section 3 of the Act of June 9, 1930 (16 USC 576b) provides for deposits of funds by timber sale purchasers to cover the cost of reforestation and special cultural measures to improve the future stand of timber on the areas cutover by the purchaser. Accomplishments under this program are reported under the Forest land management subappropriation along with accomplishments for reforestation and stand improvement for that subappropriation.
- (5) Scaling. Under provisions of the Act of April 24, 1950 (16 USC 572) and of Section 210 of the Act of September 21, 1944 (16 USC 572a) acceptance of deposits from timber purchasers for cooperative scaling service is authorized. Such arrangements are established only when requested by the operator and when the operator pays the extra cost of such services, either in advance or through reimbursement under appropriate payment guarantees.
- (6) Research Investigations. The Acts of June 30, 1914 (16 USC 498) and May 22, 1928 (16 USC 581i-1) authorize the acceptance of deposits for forestry research. Deposits are received from State and other public agencies, and from industrial, association, and other private agencies to finance research projects of mutual interest and benefit to both parties. The deposits may be made either in a single sum or on a continuing basis, and may either partially or wholly cover the cost of the research. The cooperative research projects may involve any aspect of forestry and vary widely as to scope and duration. A very common

example of such cooperation is for a State to make a deposit to the Cooperative work fund in order to intensify or to speed up completion of a comprehensive survey of the forest resources of the State. Other examples are State contributions toward forest fire research. The results of such cooperative investigations are made available to the general public as well as to the depositor.

- (7) Administration of Non-Federal Lands. The Act of March 3, 1925, as amended by Section 5, Act of April 24, 1950 (16 USC 572) authorizes the acceptance of deposits for the administration of non-Federal lands. These deposits are made by non-Federal owners having land intermingled with or adjacent to National Forests who wish these lands managed in accordance with good forest management practices. Their holdings are usually too small to warrant the employment of professional foresters to administer such tracts. The advantages to the Government include the avoidance of possible high fire hazard areas resulting from improper cutting practices, the elimination of the necessity of precisely marking the boundaries of the private land, and additional private forest land handled under proper forest practices.
- (8) Reforestation (private lands). The Act of March 3, 1925, as amended by Section 5, Act of April 24, 1950 (16 USC 572) authorizes the acceptance of deposits for reforestation of non-Federal lands situated within or near a National Forest. This work is limited to areas of non-Federal land within a planting project on the National Forests or to areas in which certain civic and other public-spirited organizations have taken an interest.
- (9) Statement on Utilization of Funds. Following is a statement of funds received and obligated and balances available by major activities:

COOPERATIVE WORK, FOREST SERVICE--Trust Fund

Project	Actual Fiscal Year 1974			Estimate Fiscal Year 1975			Estimate Fiscal Year 1976		
	Balance Available June 30, 1973	Funds Received	Obligations Balance	Funds Received	Obligations Balance	Funds Received	Obligations Balance	Funds Received	Obligations Balance
1. Construction and maintenance of roads and trails	\$9,231,963	\$10,447,960	\$9,499,190	\$10,180,733	\$12,360,000	\$10,425,000	\$12,115,733	\$12,515,000	\$14,100,000
2. Construction and maintenance of other improvements	1,020,706	1,248,485	1,172,260	1,096,931	1,000,000	900,000	1,196,931	1,300,000	2,061,000
3. Protection on National Forests and adjacent private land:									
(a) Fire	690,236	2,454,008	2,467,578	676,666	2,500,000	2,650,000	526,666	2,500,000	2,890,000
(b) Other	2,986,601	3,050,195	2,630,374	3,406,422	2,800,000	2,650,000	3,556,422	2,800,000	3,615,000
4. Sale area betterment on National Forest lands (including reforestation) ..	66,911,889	46,699,366	37,159,325	76,451,930	47,740,000	44,025,000	80,166,930	51,500,000	63,244,000
5. Scaling of timber	286,299	1,453,307	1,473,648	265,958	1,400,000	1,455,000	210,958	1,500,000	1,550,000
6. Research investigations	332,289	1,183,767	783,767	732,289	700,000	742,000	690,289	700,000	1,035,000
7. Administration of private lands	19,576	75,223	71,644	23,155	65,000	70,000	18,155	75,000	80,000
8. Reforestation (private lands)	110,361	4,383	58,737	56,007	35,000	38,000	53,007	10,000	62,000
Total	81,589,920	66,616,694	55,316,523	92,890,091	68,600,000	62,955,000	98,535,091	72,900,000	88,637,000
									82,798,091

NOTE: Balances carried forward are due primarily to necessity of deferring work for which funds are deposited until the most practicable time for accomplishment. For instance, funds for sale area betterment are received in advance of timber cutting, but work cannot be started until cutting operations are completed. The time lag sometimes extends for several years, depending on the amount of preparatory work required in the sale area and weather conditions.

Above obligations for 1974 include refunds to cooperators in the amount of \$297,027.

	1974	1975	1976	Change
Permanent full-time positions ...	1,380	1,470	1,643	+173

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
COOPERATIVE WORK (TRUST FUND)

A-11-32a

Program and Financing (in thousands of dollars)--continued

Identification code 05-96-8028-0-7-302	1974 actual	1975 estimate	1976 estimate
Relation of obligations to outlays:			
71 Obligations incurred, net	55,317	62,955	88,637
72 Obligated balance, start of year	6,696	2,440	4,085
74 Obligated balance, end of year	-2,440	-4,085	-8,165
99 Outlays	59,573	61,310	84,557
1/ Includes capital outlay as follows: thousand; 1976, \$3,000 thousand.	1974, \$1,897 thousand; 1975, \$2,000 thousand; 1976, \$3,000 thousand.		

STANDARD FORM 304
May 1969, Bureau of the Budget
Circular No. A-11, Revised.
304-103

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
COOPERATIVE WORK (TRUST FUND)

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-8028-0-7-302	19 74 actual	19 75 estimate	19 76 estimate
Personnel compensation:			
11.1 Permanent positions	16,585	19,550	23,565
11.3 Positions other than permanent	11,524	13,328	16,480
11.5 Other personnel compensation	949	990	1,120
11.8 Special personal services payments	20	20	50
Total personnel compensation	29,078	33,888	41,215
Personnel benefits:			
12.1 Civilian	2,569	2,934	3,670
13.0 Benefits for former personnel	13	15	15
21.0 Travel and transportation of persons	451	451	700
22.0 Transportation of things	1,966	2,100	3,200
23.0 Rent, communications, and utilities	1,112	1,650	2,550
24.0 Printing and reproduction	34	50	75
25.0 Other services	9,171	9,027	16,407
26.0 Supplies and materials	5,270	5,550	9,600
31.0 Equipment	922	1,050	1,600
32.0 Lands and structures	4,623	6,300	9,700
33.0 Investments and loans			
41.0 Grants, subsidies, and contributions	3	.....	.....
42.0 Insurance claims and indemnities	7	5	5
43.0 Interest and dividends			
44.0 Refunds	295	150	150
Subtotal	55,514	63,170	88,887
95.0 Quarters and subsistence charges	-197	-215	-250
99.0 Total obligations	55,317	62,955	88,637

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STANDARD FORM 300
July 1954, Bureau of the Budget
Circular No. A-11, Revised.
300-101

A-11-34a

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
COOPERATIVE WORK (TRUST FUND)

Personnel Summary

Identification code 05-96-8028-0-7-302	1974 actual	1975 estimate	1976 estimate
Total number of permanent positions ..	1,380	1,470	1,643
Full-time equivalent of other positions	1,484	1,616	1,829
Average paid employment	2,704	2,969	3,355
Average GS grade	8.61	8.67	8.66
Average GS salary	\$14,322	\$15,147	\$15,174
Average salary of ungraded positions .	\$11,174	\$11,794	\$11,794

GPO : 1971 O - 442-317

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FOREST SERVICE

COOPERATIVE WORK, FOREST SERVICE

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976	:7/1-9/30/76
	:Estimate:	Estimate
1. Construction and maintenance of roads and trails	\$12,515	\$2,800
2. Construction and maintenance of other improvements	1,300	300
3. Protection on National Forests and adjacent private land:		
(a) Fire	2,500	580
(b) Other	2,800	650
4. Sale area betterment on National Forest lands (including reforestation)	51,500	11,300
5. Scaling of timber	1,500	200
6. Research investigations	700	150
7. Administration of private lands	75	20
8. Reforestation (private lands)	10	- -
Total	<u>72,900</u>	<u>16,000</u>

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
COOPERATIVE WORK (TRUST FUND)

Program and Financing (in thousands of dollars)

Identification code

05-96-8028-0-7-302

	IK XXX	IK XXX	IK XXX
	7/1-9/30/76		
<u>Program by activities:</u>			
1. Construction and maintenance of roads and trails	2,800		
2. Construction and maintenance of other improvements	300		
3. Protection of National Forest and adjacent private land	1,230		
4. Sale area betterment and scaling	11,500		
5. Research investigations ..	150		
6. Administration	20		
Total program costs, funded 1/	16,000		
10 Total obligations	16,000		
<u>Financing:</u>			
21 Unobligated balance available, July 1	-82,798		
24 Unobligated balance available, September 30	82,798		
60 <u>Budget authority (appropriation)</u> <u>(permanent, indefinite) ...</u>	16,000		
<u>Relation of obligations to outlays:</u>			
71 Obligations incurred, net ...	16,000		
72 Obligated balance, July 1 ...	8,165		
74 Obligated balance, September 30	-3,625		
90 Outlays	20,540		
Includes capital outlay as follows:	\$500 thousand.		

FOREST SERVICE

COOPERATIVE WORK, FOREST SERVICE

Justification for Transition Period July 1-September 30, 1976

It is anticipated that approximately \$16 million will be deposited in this account during the transition period which is about 22 percent of anticipated receipts in fiscal year 1976.

These funds are derived from contributions from cooperators, including counties, States, timber sale operators, individuals, and associations, and are expended by the Forest Service in accordance with the terms of the applicable cooperative agreements. The work consists of protection and improvement of the National Forests, work performed for National Forest users, and forest investigations and protection, reforestation, and administration of private forest lands.

The relationship of the deposits for the period July 1, through September 30, 1973, to the total fiscal year 1974 deposits was used as a basis for determining the budget authority for the transition period.

The actual collections made during the transition period will become available for obligation as soon as they are deposited into this account.

UNITED STATES DEPARTMENT OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY
BELTSVILLE, MARYLAND 20705

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12 November 1960

Mr. J. H. ...
Mr. ...
Mr. ...

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